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Motivating Students attending a Teacher Education Programme in Hong Kong Using Quality Learning Teams

A Thesis by

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10 NOV 2003

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Thesis Title:**Motivating Students attending a Teacher Education Programme
in Hong Kong Using Quality Learning Teams****ABSTRACT**

Whatever you teach, be brief, that your reader's minds may readily comprehend and
faithfully retain your words. (Horace, *Ars Poetica*)

Purpose

In 1995, the Government of Hong Kong amalgamated six independent, Government sponsored Colleges of Education, which offered Certificate in Education courses, into the Hong Kong Institute of Education. The remit of the newly-formed, autonomous Institute was to attain university status and to upgrade courses to degree and post-degree level. Many of the existing staff remained with the newly-formed institute while a recruitment drive resulted in an increase in international lecturing staff. This study results from action research, undertaken by the author, to develop pedagogy suitable for both the international lecturing staff and the Chinese student teachers. The research set out to take advantage of the diverse backgrounds of the lecturing staff.

Of the various pedagogic strategies employed by lecturing staff, the Total Quality Management (TQM) approach emerged as the most effective, promoting as it does a way for the students to plumb co-operatively the often difficult depths of what they are studying, as well as motivating them in their chosen career.

The stringent examination system in Hong Kong, the lack of university places and the economic situation all play their part in determining the student population in the Institute of Education where students whose first choice is to enter the teaching profession could well be outnumbered by those who consider themselves without more attractive alternatives. In addition, the lecturing staff from overseas became aware of the Chinese culture of 'Shame' among their students – the students who had failed were castigated and further marginalized by their family and friends. It was hoped that the employment of a TQM approach through the use of Quality Learning Teams would help to combat this 'shame' and, hopefully, increase the self-confidence of these 'shamed' students.

The project's aim was to introduce and role-model a different pedagogic practice and to utilise constructivist-based pedagogy so that two major outcomes could be measured: (1) that student teachers would become active and confident learners who would themselves challenge their own pupils and (2) that colleagues outside the project could observe the usefulness of this alternative pedagogy and make use of the innovation in their own lecture rooms.

This involved investigation of diverse aspects of teaching and learning. Research on individual areas has been quite extensive, but little research has been done in this particular area with regard to student teachers in Hong Kong and it is, therefore, the purpose of this study to add to existing knowledge, with specific emphasis on Quality Learning Teams.

The rationale for the study was, on the one hand, the Hong Kong Special Administration (HKSAR) Government Educational Reforms, but also – and more importantly for the lecturers concerned – the search for a means to inculcate a culture of co-operative learning within the student-teacher body, as well as a means for international lecturing staff to create an effective pedagogy, utilizing both mother tongue and English as languages of instruction.

Major Findings

The findings of the study indicated that student learning was enhanced by using Quality Learning Teams. This was demonstrated by the overall module results which showed higher module grades for the groups who were subjected to the innovative pedagogy than for those groups who were subjected to the normal 'traditional' pedagogy. Student self-esteem, self confidence, trust in peers, and a work ethos of self-sufficiency developed amongst the majority of student teachers. Language skills were enhanced and strategies for learning were improved.

It is hoped that the results of this study will assist in the future planning of courses in the education of student-teachers and in creating a more 'risk-taking' culture within the lecturing staff at the Institute.

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Abbreviations

A.S.I.	Approaches to Study Inventory
B.Ed.	Bachelor of Education
C.A.S.E.	Cognitive Acceleration through Science Education
C-B.A.M.	Concerns-Based Adaption Model
C.E.	Certificate in Education
C.T.S.	Classroom Teaching Skills
D.f.I.D.	Department for International Development
H.K.	Hong Kong
H.K.I.Ed.	Hong Kong Institute of Education
H.K.S.A.R.	Hong Kong Special Administrative Region
I.D.S.	Instructional Design and Strategies for Effective Teaching
I.S.O.	International Standards Organisation
L.A.	Level of Aspiration
L.E.	Level of Expectation
L.P.Q.	Learning Process Questionnaire
P.B.L.	Problem-Based Learning
P.G.D.E.	Post-Graduate Diploma in Education
Q.L.T.	Quality Learning Team
N.E.T.	Native English Teacher
S.A.R.	Special Administrative Region
S.C.M.P.	South China Morning Post Newspaper
S.D.T.'s	Self-Directed Teams
S.P.Q.	Study Process Questionnaire
T.O.C.	Target Oriented Curriculum
T.Q.M.	Total Quality Management
U.K.	United Kingdom
U.N.D.P.	United Nations Development Programme
U.N.	United Nations
U.S.A.	United States of America

Chapter 1

Introduction

"Motivating Students attending a Teacher Education Programme in Hong Kong Using Quality Learning Teams"

This chapter presents the background to the study by identifying the problem, formulating the research questions and summarising the procedures, the significance of the study and its limitations.

The study was based on the experiences of foreign (Australian, Canadian, U.S.A., British, Taiwanese and Hong Kong) lecturing staff (see appendix 35) who were allotted classes of students with varying degrees of proficiency in English. Eight classes, each of 35+ students studying the same education module, received instruction from these lecturers. The modules being taught were part of the Certificate in Secondary Education (CE), a course with an enrolment of over seven hundred students at the time of the study. The students' major and minor subject specialisms included English, Chinese, Geography, Mathematics, Science, Home Economics, Social Studies, Office Arts, Design and Technology and Art and Design. The foreign lecturers, whose extensive experience in tertiary education spanned thirty years, found themselves having to examine their classroom practice and consider a different approach to teaching and learning with Chinese student teachers.

The decision of the lecturing staff to develop pedagogy suitable for Chinese student teachers came at what might be described as a providential time in the development of education in Hong Kong. The Hong Kong Government had, in 1996/7, provided a blueprint of aims and objectives for what they described as a much needed injection of educational change in the schools of Hong Kong. The blueprint provided by the Hong Kong Government Education Commission Report No: 5 (1992) followed by Report No: 6 (1995) and No:7 (1997), indicated an urgent need to introduce an across-the-board change in how teachers taught and how students were evaluated and assessed.

Objectives of the Learning to Learn documents also indicated a need for teachers to provide innovative approaches to pedagogy, to encourage student-centred learning and a lessening of Hong Kong's traditional chalk-and-talk, teacher-centred style of teaching. Collaborative and co-operative learning were also encouraged throughout the territory as was a revision of evaluation and assessment methods, to reduce the emphasis on purely summative evaluation and replace it with a more formative and authentic assessment which would provide a more individual profile of a student's performance. Assessment methods suggested by the reform documents included group projects, class assignments, portfolio assessment, individual reflections by students and a move towards more continuous assessment.

In Hong Kong, competition amongst students for tertiary places is fierce, with institutions accepting only a small percentage of applicants each year. Most, if not all, universities deem grade indicators as passports for entry. Unfortunately, this expectation has driven the education system to rely on rigorous and highly supervised examinations the results of which serve to eliminate vast numbers of prospective students.

Data provided by the Hong Kong Institute of Education, Student Affairs Office was used to provide information on the students, against which background a classroom strategy could be developed.

The data showed that the majority of the student teachers had entered the Hong Kong Institute of Education after their 'A' levels at 19 years of age. Some had had a 'year out' to re-sit their 'A' level examinations. Some had actually entered the world of work, most of them for less than five years. Yet others had entered after completing their first-degree studies.

One common feature observed in each student group was the perceived issue of 'failure'. Many entrants described themselves as depressed, having low self-esteem, or having failed their families. They were suffering from a degree of shame, the fact that they *had* to enter teacher education creating a negative view of themselves and their peers. Their expectations of the teacher education course and of themselves were low and reflected in their passive performance in the classroom.

The only students who appeared to be pleased to be on a teacher education course were those who had graduated from Band 5 schools in Hong Kong. At the time of the research, prospective secondary school students were allocated places at appropriate

schools according to their primary leaving assessment/examination, the best allocated to a Band One school. The positive attitude of this small group of students was due to their perceived success in overcoming the social and academic disadvantages of their Band 5 backgrounds to aspire to what they regarded as a respected profession.

Therefore, the groups of teacher trainees facing the lecturing staff were students with mixed feelings, many of them negative. Yet, in spite of these mixed feelings, many displayed an openness and willingness to learn that motivated the author and provided the rationale for this study.

The scope of the study

To combine research with innovation in pedagogy required an action research approach. The lecturers' aim was to create the best possible learning environment. The research explored how successful learning might occur within quality learning teams in actual classroom settings.

Quality Learning Teams

It is essential for the reader to understand what the author means by 'quality' learning. *Quality Learning Teams* is much more than just group work or co-operative learning: it encompasses feelings and a desire for the whole team to achieve excellence and, in the teacher-training situation in question, the drive to establish team understanding and achieve goals, as well as monitor and support individual input and prepare the students for their future roles in the classroom.

The idea of using a "quality learning team" approach, as opposed to the simpler description 'learning team', stems from W. Edwards Deming's (1986) philosophy on Quality Improvement which, although aimed at a commercial or industrial setting, can nevertheless be applied in an educational setting (see Deming's 14 point treatise. Appendix 4). This study is concerned with Deming's philosophy as it might be applied to a classroom teaching and learning setting.

The main feature of Deming's philosophy is 'adopting a new philosophy', a new way of thinking about the activities in which people are engaged in their working career. By adopting a new philosophy, industry shifted from the final product inspection ('O' and 'A' level examinations in a school setting), to paying attention to the process itself and to every phase of manufacture, involving every worker. Thus, student teachers would be encouraged to adopt a new philosophy of learning, to broaden and enhance expectations of themselves and their own abilities and to look upon their situation in a more positive and productive way.

This definition of 'quality' assumes that the potential for quality is in everyone and that success is not merely the result of pragmatism or demonstrated in examination results. 'Quality' aims to stimulate a desire to learn beyond graduation and, in becoming a qualified and professional teacher, to take a step towards life-long learning.

The Problem and Research Questions

The study stems directly from the desire of foreign lecturing staff to provide the best and most effective pedagogy for their Chinese students whilst at the same time overcoming student inhibitions and the apparent tendency toward learned helplessness that many brought with them from their secondary schools.

Questions which presented themselves:

- How could the lecturers create a learning environment for Chinese student teachers that would encourage self-esteem, trust in oneself and in one's peers, an environment that would provide examples of effective teaching and learning?
- How could the lecturers convince the student teachers that teaching is a worthwhile career?
- How could the lecturers create an environment for student-centred learning in which collaboration could also take place?

Action Research and the Implications for this Study

Professor Paul Morris, the current President of the Hong Kong Institute of Education, commented, in 1996, on the proposed Hong Kong Government Education Reforms in the following terms:

"It is a means of injecting additional or innovative approaches to teaching and learning into an ongoing system which normally inhibits innovation and change" (Morris, 1996)

This description aptly represents the system in Hong Kong which adheres to what local counterparts and students refer to as 'traditional' methods of teaching. This refers to the lecturing style that they were subjected to themselves at primary and secondary school: the teacher was the fount of knowledge, knowledge that the students had to absorb and reproduce in the examination situation. In the light of the Education Reforms, an active research focus was adopted for this study, concerned as it was with developing an innovative pedagogy within an authentic classroom situation.

The research was based on both qualitative and quantitative data collected through questionnaires and supplemented with in-depth interviews of randomly selected

students and staff involved in the research. Over six hundred students were involved in the study some of whom were introduced to the innovative pedagogy using a team approach and some who received 'traditional' teaching.

Procedure

Chapters 2 and 3 examine the literature and address the issues described in this introduction. Chapter 4 describes in more detail the methodology used in conducting the study. It examines the questions arising from the literature review in Chapter 2 and 3 and the pedagogy used in the study, as well as discussing the associated questionnaires, interviews and data. Chapter 5 analyses the summative data arising from the student questionnaires using statistical software and Chapter 6 examines the qualitative student data. In Chapter 7 the qualitative analysis of lecturer interviews is discussed and Chapter 8 provides a conclusion, incorporating a summary of the implications and limitations of the study.

Significance of the Study

Previous research into the pedagogy used for student teacher education in Hong Kong has not focused specifically on cultural connections, 'Chineseness', or on the establishment of a pedagogy to counteract the negative traits which might be exhibited by student teachers. This study, using an action research model, provides a platform from which an exploration of these areas might begin.

The study might be said to be limited by the interpretations of the researcher who, as a foreigner, will inevitably have seen the problem through Western eyes and attempted its solution in a Western way. Notwithstanding, the study aims to contribute to established knowledge of, and about, the Chinese learner and how Chinese student teachers might best respond to unfamiliar pedagogy.

Chapter 2

Literature Review: I

Student Learning in Hong Kong, with particular reference to Initial Teacher Training

Student learning in Hong Kong cannot be examined without first providing the reader with information on how education is viewed by HK society and how some of those views might have originated. Secondly, the reader will be exposed to an overview of educational issues and influences on Chinese learners and their families through the ages.

The Hong Kong Regional Council in 1996 commissioned an exhibition in print entitled *"From Study Hall to Village School"* (Ming, 1996) in which a history of education and schooling in Southern China, the New Territories and Hong Kong is described in some detail. The text by Ming was important because it provided, together with a history of education in Hong Kong from 1841 to 1941 by Sweeting (1990) and from 1941 to 1995 by Sweeting and Morris (1995), a foundation on which the author can build a framework of Hong Kong education and some of the attached cultural heritage, thus providing a rationale for this study.

Anthony Sweeting (1990), provides an historical background to education in Hong Kong, from the establishment of Hong Kong in 1841 to the Japanese occupation of Hong Kong in 1941, his account based on historical records and opinions of the day. Sweeting and Morris (1995) illustrate developments in primary and secondary education provision for the general Chinese population in Hong Kong from 1941 to 1995.

The Education System in the Qing Dynasty and the place of Imperial Examinations

Traditional Chinese schooling stems from Imperial times over a thousand years ago when the education system of the day, comprising private study halls, operated a curriculum geared to specific needs that evolved from the demands of the Emperor and the Imperial Government who sought suitable candidates as civil servants. Much of what was taught and learned followed the teachings of Confucius and his philosophy

and moral code which demanded deep understanding and hard work in order to gain self fulfilment and sagehood.

To identify suitable candidates for service to the Emperor, the Imperial Government set up a system of examinations that were to serve as a basis for education provision in China for the millennium that followed. The Imperial Examination system, lasting for 1300 years from A.D. 606 until 1905, was responsible for providing government officials to successive dynasties (*Ming, 1996*). The examinations were pyramidal in nature, ascending through a number of stages from district examinations to provincial, metropolitan and, finally, to the Imperial Palace examinations. District examinations attracted those students from local private schools - of which there were few - and successful candidates in the district examination were conferred with the title of *shengyuan*, meaning government student. "These competitive examinations made it possible for bright young Chinese from poor rural backgrounds to join the ranks of government officials" (Freedman, 2002). The successful examinees, as government students, gained the entitlement of entering the provincial examinations held every three years in Beijing where those who passed were conferred with the further title *juran* and allowed to compete in the metropolitan examinations also held every three years. Out of the six or seven thousand who might take the examination at the metropolitan level, approximately 300 were successful and these gained the title of "*gongshi*" (p.10.). The *gongshi* title holders had then to compete in the Imperial 'palace' examinations, administered by the emperor himself, which separated those candidates who gained the highest merit, and who were deemed best suited to the service of the Emperor, into three distinct classes. The top three candidates, titled *jinshi*, received appointments immediately, the other two classes having to wait for their appointments, usually as district magistrates, at some time in the future. Their future secured, even those second and third level candidates earned a beneficial career structure, with recognition and recompense that allowed them, and their families, to live very comfortable lives. Whole clans rejoiced in the success of one of their clan members, even at the two lower imperial classes. Plaques were commissioned and exhibited in village meeting halls with the names of those whose study and examination endeavours had been successful.

Those who had passed the district examinations, but proceeded no further, also received rewards in the form of exemption from poll taxes and conscription into military service and, together with their families, they enjoyed recognition and high esteem in their local communities. Many of those second and third class civil servants who did not

gain places as magistrates went on to serve as teachers in the private and village school systems of the day.

Part of the examination system was a recitation of poetry. In addition to being error-free, the recitation had to demonstrate deep understanding. While preparing for this exacting task, the student was accompanied by the teacher beating on a wooden block, a baton over 350 mm in length which served as a ruler, a drumstick and an instrument of punishment. This piece of equipment, says Ming, struck fear into the hearts of those students who failed to memorise their work, for incorrect recitation resulted in a beating. The importance of this task lay in each student learning the complex system of characters of the Chinese script, though often the meaning of the characters was not explained to the student. (Sweeting, 1990; Ming, 1996).

Ming (1996) describes this harsh and elitist school system persisting into the early twentieth century when, he says, from about 1910, the curriculum in Southern China and Hong Kong New Territories began to alter from imperially determined, based on the four books of Confucian teachings and the "basic canons of Confucian classics, essential for the examination system, to include the new subjects: Arithmetic, History and Geography" (p.20.).

Sweeting (1990) describes the early colonial attempts, in the 1840's, to provide schooling in Hong Kong for the children of the foreign settlers and workers, as rudimentary and almost completely dependent on parental contributions to the schooling provided by missionaries. In 1843, the Secretary of State for Colonial Territories advised the British Government that sponsorship of schooling in Hong Kong was not needed nor was it a good investment. Small injections of finance were, however, made through the late 1840's and these were increased in the 1850's as the Hong Kong Governors of the day persuaded the British Government that funds for schooling would encourage British immigration and settlement in Hong Kong and generate more schools. The Chinese schools in Hong Kong at that time consisted of seven private schools, in different parts of the territory, providing mainly primary level education, although it was common to include older children in the classes. The older children would learn the four character classic (Tsin-sze-man), and, at the same time, assist with teaching the younger children the three character classic (Sam-sze-king). The teachers in those schools (Sweeting, 1990) were mainly concerned with student recitation of the classic texts; understanding of the texts was not even discussed until the children could recite verbatim all the texts. It was thought that there would be no understanding until each child knew the text inside-out. Frederick Stewart (1865), Head

of the Hong Kong Education Department, provides, through his Education Report, written in 1865, gazetted in the Hong Kong Gazette 1866, a representative view of Chinese education of the day when he describes the education taking place in the Chinese schools. He says, "the Chinese...as having no education in the real sense of the word...the development of mental powers...are sacrificed to the cultivation of memory". This view is reiterated by C.S. Addis (1889) in his article 'Education in China', in which he says, "in truth, Chinese education...is no education at all...the only merit which can be claimed for Chinese education is that it strengthens the memory...learning by rote is not learning at all". This attitude was to prevail with succeeding heads of the education department in Hong Kong for decades to follow.

Throughout the decades leading up to the First World War, the British Government were persuaded by prominent leaders in Hong Kong to gradually increase the funding for schools in Hong Kong, although nearly all of it was directed towards English style education, providing at least basic education for the growing numbers of children of British workers and managers. The education of Chinese children was left almost exclusively to village schools, funded by parents, and to missionaries who made it a condition that parents had to pay school fees and their children had to be brought up in the faith espoused by the missionary teachers.

The late nineteenth century and early twentieth century saw great disturbances in China resulting in a move by many who aspired to be teachers to the relative peace of Hong Kong where they established village schools for which there was a growing demand from parents of Chinese children (Sweeting, 1990). The Hong Kong Government continued to refuse to recognise that education provision for Chinese children was necessary, although meagre funding for certain schools was provided.

This situation for the Chinese child was not to change very much until just before the Second World War, when schooling continued to be predominantly the responsibility of the village, serving only a small number of students and funded by the villagers themselves with meagre assistance from the government (Sweeting, 1990). After the 1939-1945 war, the attitudes of the colonial government in Hong Kong began to change and compulsory schooling for all Chinese children, at the primary level, was gradually introduced, although the funding of secondary schools was not to become common until the 1960's and 70's (Sweeting and Morris, 1995). Until 1956, Chinese textbooks commonly used in Hong Kong contained much of the old style learning based on the Confucian classics with additional subjects (Sweeting and Morris, 1995).

The aims and values associated with both the Chinese Imperial system and Confucian philosophy of education were carried over from one generation of teachers to the next. Many of these teachers, having failed the examination and with few employment prospects, considered themselves as failed civil servants, whose aim for education was to bring students successfully through the same examination system, thereby gaining approbation for themselves from the local and provincial communities (Ming, 1996; Sweeting, 1990).

The eventual abandonment of the imperial examination system in 1905 left education in somewhat of an abyss, say Zhong and Hayhoe (2001, p.268), who cite the 'theoretical foundations' of education, spanning much of the 20th Century, as stemming from Confucian tradition, which has been viewed in "relation to its impact on government and in its contributions to the establishment of a harmonious social order", and in the maintenance of piety in those in high office. Thøgersen (2001), similarly describes the traditional village teacher right up to 1949 as having close ties with the imperial examination system of the Qing dynasty, continuing to apply a traditional philosophy based loosely on Confucian principles to their teaching and to their students' learning.

Teacher Training for Chinese Teachers

Ming (1996) explains that, traditionally, most teachers were those who had failed to gain a place on the ladder of promotion after taking their provincial or imperial examinations. Some teachers came from the cohort who passed the provincial or even district examinations, but who failed to go further (Sweeting, 1990). Many were academics, suggests Sweeting, of very different quality with nothing else to do with their talents except become scribes or take on the mantle of teacher. They continued to teach in a style and to use the same pedagogic strategies, says Ming (1996), that they themselves had experienced, attempting to gain approbation by having their students succeed in their quest for examination placement. Many of the teachers hired in the early days of schooling in Hong Kong and the New Territories came from the Southern Provinces of China and brought with them all the pedagogy and philosophy of recitation from their own student experiences under the Imperial education system. "The village teachers were often village personalities with prestige who brought with them skills other than mere literacy" (Thøgersen, 2001, p. 242.). "This reputation and prestige attracted boys from less well-off families to the teaching profession and teacher training" (p. 243.). This was not to change and, after the Imperial examination system was abolished in 1905, there were many scholars still seeking suitable posts in what was becoming a lucrative place to be – Hong Kong. Hong Kong's teaching community

became essentially a micro Imperial education system, holding the same values and expectations, in which each student continued to rely very much on recitation, memory and the retention of information, in the traditional way, coupled with some of the new innovative subjects that were becoming desirable in a fast developing territory (Ming, 1996).

In 1926 (Ming, 1996; Sweeting, 1990) the government of Hong Kong realised that teachers needed to be of a less variable standard and there was a desire to adopt an acceptable uniform quality of teaching. The government of the day set up the first Teachers Training College – an establishment that was started in Tai Po in the New Territories. The campus in Tai Po existed for a short time until the outbreak of the war in 1939. Colleges of Education were gradually established after the war and by the 1980's five colleges were operating, supplying teachers for primary and secondary schools. In 1995 the government directed that teaching was to be a degree only profession, requiring a degree awarding university to fulfil this need. The colleges were amalgamated; new lecturing staff appointed and the Hong Kong Institute of Education was founded. The Hong Kong Institute of Education was set up on a custom-built campus in Tai Po in 1997.

In the early days of teacher-training in Hong Kong in the 1930's, it was no longer acceptable or possible due to political restraints, to recruit from mainland China (Ming, 1996). The training of teachers in Hong Kong was initially offered to youths who were interested in a life of teaching and attracted increasing numbers for the two-year course. Courses included such specialist subjects as Mathematics, Geography, History, Hygiene, Horticulture and Agriculture. Teacher-training was seen as a skills course with basic knowledge of these subjects, whose graduates were destined for the government controlled and partly sponsored village schools. Teacher-training ceased at the outbreak of the war in 1939 and was not resumed until well into the 1950's, at which time the government laid down a more rigorous and demanding standard of teacher education in an attempt to improve teaching and student learning across the New Territories and Hong Kong (Sweeting and Morris, 1995).

Traditional Teaching Methods

As a prelude to scrutinising teaching methods in Imperial days it is useful to examine what Ming (1996) describes as a Chinese Classic, characters in a verse stating that “to teach without severity is a fault in the teacher” (p.41). Corporal punishment, meted out by the teacher's wooden rule, enforced obedience. What was interesting in the old days was the fact that pupils learned on a one-to-one basis with individual tuition, even

when pupils of different grade-levels were placed in the same classroom. Success very much relied on memorisation and continual practice in calligraphic skills development. As education evolved, village schools placed two classes of children in the same room to be taught by the same teacher who was expected to teach both at the same time. Memorisation became an expedient way to engage one group of students whilst attention was being given to the other (Sweeting, 1990; Ming, 1996). To some extent, this cultural and educational tradition remains a force still to be reckoned with in the 21st century.

Until well into the 1930's, a boy beginning his school career in the Hong Kong village school system had to prostrate himself in front of a picture of Confucius, the father of teaching and learning, on the first day of attendance (Ming 1996). Boys, points out Ming (1996) and Sweeting (1990) were valued much more highly than girls and schools in the New Territories were predominantly for boys. Only the very rich families could afford to send a girl child to school and then not for the same length of time as the boys, nor could they mix at school after the age of twelve. The first girls' modern secondary school, Chung Sing School in Yuen Long, did not appear until just before the war in 1939 (Sweeting, 1990). Government regulations of the time did not allow girls over the age of twelve to attend the same school as boys.

The Chinese Learner in Hong Kong in the latter part of the Twentieth Century.

The sharply rising population in Hong Kong after the war, with an influx of one million immigrants predominantly from Mainland China, created by the 1949 establishment of the People's Republic under communist rule, increased the pressure for education provision. The population of Hong Kong immediately before this influx was approximately 450,000. The large numbers of refugees (Wong, 1999) engendered the growth of Primary education provision in the early 1950's and into the 1960's, followed by secondary education provision, in the late 1960's and early 1970's. From the early 20th century Hong Kong had become a City State divorced from the Mainland with a definite Hong Kong culture, embodying much of the culture of the Mainland, intermixed with other influences Luk (1991). Morris (1998) describes this intermixing in terms where:

"Generations of Hong Kong Chinese pupils grew up learning from the Chinese culture subjects to identify themselves as Chinese but relating that Chineseness to neither contemporary China nor the local Hong Kong landscape. It was a Chinese identity in the abstract, a patriotism of the 'émigré', probably held in all the more absolute because it was not connected to a tangible reality." (Morris, 1998. p. 145)

This unique culture is described by Pollock and Reken (1999) as a *third culture* – part Mainland Chinese, part new Hong Kong resident; still Chinese but more of a hybrid

Chinese culture – a third culture whose children Pollock and Reken (1999) describe as having to go through a number of stages of settling into and becoming integrated into the dominant culture (see figure. 1).

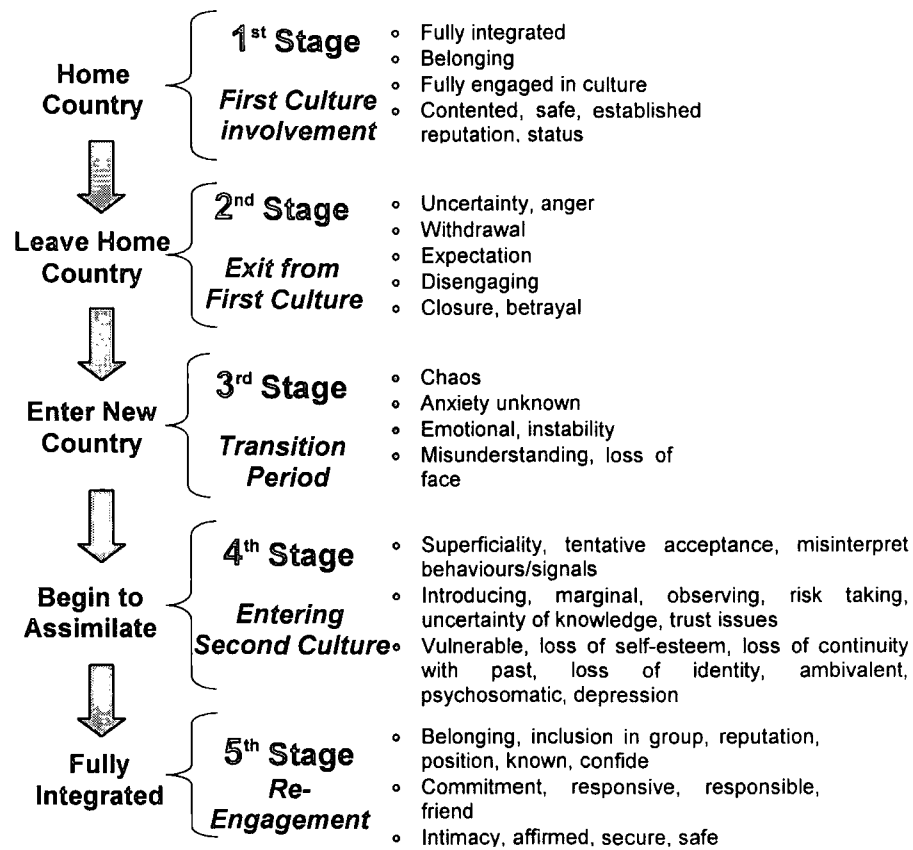


Figure. 1 Pollock and Reken’s (1999) stages of integrating into a new (third) Culture

Since the Cultural Revolution in Mainland China, there has been an ever-increasing mixture of Chinese people in Hong Kong who did not originate in Hong Kong; they arrive still from Mainland China and also from Singapore, Malaysia, Indonesia, Taiwan, Australia and Canada. Society and family in their ‘home’ country, wherever that may have been, influences the cultural backgrounds of those individuals. Pollock and Reken (1999) describe those who have emigrated and settled in a new country as ‘third culture persons’, who have left their original culture, moved as immigrants into a second culture, in this case Hong Kong, and evolved into third culture people who have had to go through a number of traumas on the way to their new culture. What Pollock and Reken highlight is the uncertainty those people carry with them into their new lives and also into school education. Pollock and Reken suggest that Third Culture children take many years to settle into their adoptive culture and often never feel fully a part of that society. Bond (1993) ‘argues that Hong Kong students display a complex identity which is characterised by a low level of identification with Hong Kong and a tendency to ascribe to themselves the more desirable features of both traditional Chinese and

Western identities'. According to Pollock and Reken even the children of those Third Culture kids take on a mixed mantle of original culture and the new culture which is the culture that they were born into. It sometimes takes generations before the culture attains its own identity. In January 2002 the author visited nearly forty PGDE student teachers of the Hong Kong Institute of Education who were undergoing field experience and found that approximately 40% of those teachers had been born in mainland China, most having immigrated to Hong Kong when they were less than ten years of age. Pollock and Reken described Third Culture persons in relation to such immigrants as the Irish immigrants into England, the Europeans into America, the Algerians into France, the English into colonial administered countries of years past, etc.. The author has taken some of Pollock and Reken's findings and related them to the Hong Kong situation, albeit in a Chinese context.

Interestingly, Lee (1996) mentions cultural connections and differences and difficulties in connection with the terms 'collectivism' and 'individualism' when discussing Chinese traits. Collectivism is seen in terms of family and relational constraint, while individualism is associated with self and is normally constrained within family circles. The Western concept of individualism is espoused by Lee as the nature of individual effort in Western countries: selfish and very protective and focused on oneself. When, says Lee, the Chinese individual is relocated to a city or to another country 'the culture of restraint' (Lifton, 1967) within relational circles is slackened and an emancipated self emerges (p.33). This is why individualism can be quite distinctive among Chinese who have left their relational circle (Eberhard, 1971; King, 1992) and now feel justified in concentrating on their own existence, desires and personal goals. Ferguson (2002) quotes Rawl (1992) whose study of cultural characteristics in families illustrates this point when she describes Chinese families traditionally inculcating children with the notion that aggression, anger or strong emotion should be controlled and not shown in public. Rawl found this point interesting as Chinese women in the United States of America, showed their anger more forcibly in public than either Caucasian or African American women.

The Chinese Learner in the 21st Century

The background to Chinese education provided by Ming (1996) and Sweeting (1990) in the Southern part of China and Hong Kong, reflects society's recognition of, and admiration for, studious endeavour which enhances employment prospects and gains approbation for whole families. Wong (1999) discusses this affiliation with tradition when she describes both Hong Kong and Macau, despite being administered by colonial powers, as "maintaining similar ideologies in education embedded in

Confucian roots" (Wong, 1999, p.31). According to Lee (1996), the Confucian heritage is imbued in Chinese culture for Chinese originating from the mainland, Hong Kong and other Chinese communities around the world and prepares the Chinese learner for a learning style quite different from that of students in the West. Much has been written of the effects of Chinese culture, and in particular of the Confucian philosophy towards learning, scholarly behaviour and the effects on Hong Kong Chinese students'.

The literature about Confucian beliefs and principles, opens up the debate about what Confucius did or did not say or believe in. Much of what appears in written texts appears to rely more on what people *think* Confucius meant. Freedman (2002) talks of the spirit of Confucius emanating from his disciples, represented by one of the best known, Mencius. One hundred and fifty years after the death of Confucius, Mencius wrote the Analects, in which he presented his interpretation of what Confucius' philosophy meant. In the centuries following the publication of the Analects, confusion continues, as people, purporting to follow Confucius' teachings, reinterpret the Confucian principles and philosophy to satisfy their own understanding (Watkins and Biggs, 2001). Freedman (2002) suggests also that "English translations of the Analects differ significantly" (p.47), depending on which Chinese edition is used for the translation.

For much of the twentieth century, China has been in turmoil, politically and educationally, with many years of Japanese occupation, upheaval in the 1930's through the period to the 1939-45 war, communist rule from 1950 and the Cultural Revolution in the 1970's. All have contributed to an education system which may have lost sight of some of its foundations of traditional teaching and learning, but in which much of the Confucian philosophy and principles, and indeed, the maintenance of a reverence for Confucian tradition (Lee, 1996), remains and, according to Zhong and Hayhoe (2001), has provided an educational foundation throughout the period. Whilst some of the Confucian ideals might have been sidelined for some of the Century, Confucianism continues to be an important factor in China and in Hong Kong, say Watkins and Biggs (2001), where many of the old Confucian beliefs, albeit different from what were known as Confucian principles, remain current today.

Gabrenya and Hwang (1996) suggest that, in order to discuss Chinese behaviour in any way, we 'must begin with an explanation of the 'pervasive influence' of the social philosophy attributed to Confucius' (p.312).



Figure. 2. **Confucius** – No known likeness exists but this picture is representative of what is considered a likeness. (Newsweek 27-05-2002. see appendix 1)

Gabrenya and Hwang (1996, p.312) provide the reader with an explanation of some of the Confucian principles/ideals that permeate the literature, as shown in the following list which may be useful in illustrating some important points, but is not exhaustive:

Confucian Ethical system regulating social behaviour consists of three principle ideas:

- **Ren** – Benevolence
- **Yi** – Righteousness
- **Li** – Propriety or Courtesy

The Confucian system centres on five cardinal relations:

- Relations:
 - Between Emperor and minister
 - Between father and son – the most important of the five – expectations from filial piety, rather than from an affective bond
 - Between husband and wife
 - Among brothers
 - Among friends

Thus, for 2000 years, emphasis has been placed on duty to established roles. Through most of 'Chinese history there has been little security for individuals from the state and as a result order was maintained by forcing people to learn their prescribed roles through Confucian education and family socialisation, and by enforcing proper role behaviour by threat of punishment' (Gabrenya and Hwang, 1996, p.310). Family became the centre of life resulting in the 'kin in-group, which provided the first, last and only source of security in traditional China'. To be secure, one needed to be on guard

at all times, against all outsiders, and to 'treat each person like a guest, but guard against him like a thief' (p.310). The levels of threat, insecurity, rival familism, and lack of community have decreased, but still remain important features of most Chinese societies' social ecologies' (p.310) of the 21st Century. Lifton, (1967) whose description of 'culture of restraint' being lifted when Chinese people move to a new location or country and separated from family ties and obligations, points to Pollock and Reken's (1999) discussion of 3rd culture associations being problematic.

Despite an apparent irreverence in China for Confucius during the period of the 20th Century, Lee (1996) contends that most Chinese communities throughout the world, as well as in Hong Kong, appear to be influenced by Chinese traditional education and Confucian philosophy. Despite his discussion earlier, regarding the perceived cultural difficulties and the breakdown of 'relational constraint' in Chinese individuals when they move outside the family circle into another country, an interest in Confucian philosophy is amply illustrated in the writings of Lee, (1996); Ming, (1996); Biggs and Watkins; (1996); Tang, (1996); Wong, (1999); Sweeting (1990) and others all resident outside China. In Mainland China today, there are pockets of interest in a return to traditional values and Confucian principles. The South China Morning Post of 19th January 2002 cites a private school opened in the last two years which is operating a curriculum closely related to Confucian teachings and principles (see Figure 3).

Peter Hestler (2001) in his book "River Town: Two Years on the Yangtze" illustrates some of the confusion regarding the importance of Confucian philosophy and Principles in China today. Discussions with his pre-service student teachers during his two year stay in China led him to the subject of the Chinese scholar Confucius, of whom his students had little or no knowledge. Hestler also encountered this ignorance of Confucius in his travels around China in 1997/98 (p. 199), but at the same time he comments on such items as, the 'Chinese teaching style' (p.70) and the adherence to the strict beliefs in the examination system - that effort is needed if one is to succeed - a retention of the old Qing Dynasty Imperial examination mindset. Hestler talks of student pressure and the 'heavy expectations of parents and relatives', obligations according to Confucian principles that a child has to family and the future wellbeing of the family. Hestler's students enjoyed poetry and had the facility to memorise and dissect the meanings of each line of poetry, much more so than Western students. Poetry was one of the areas of Confucian study principles that contributed to the whole person's development and, in the Imperial examination system, poetry was an important element. Despite the Cultural Revolution, Hestler came across many 'unique Chinese cultural' attachments stemming from earlier times, 'ghosts from the past'

(Hestler, 2001. p.212) and the Teacher Training College where Hestler worked also taught Ancient Chinese Literature and, with it, possibly some of the Confucian principles and philosophy. The students Hestler was teaching were from peasant backgrounds and might not, therefore, have been subjected to what Gabrenya and Hwang (1996) put forward, that for 2000 years school children from well-to-do families are directed to read the *Xiao Jing*, which is the philosophical treatise for role expectations, which emphasises duty to established roles, the most important of which is the father-son relationship. The role expectations are emphasised in the conformity to the role more so than by an affective bond' (Gabrenya and Hwang, 1996, p.310). Much confusion remains about the Confucian attachments but it certainly appears embedded in the Chineseness that Hestler witnessed during his two years living in China.

The opening of the border between Mainland China and Hong Kong since the 1970's has seen increasing numbers of children and their parents entering Hong Kong. Their background, according to Hestler (2001), embraced such cultural commitments as filial piety and other traditional values which embodied certain Confucian traditions. Such values also included traits of learning taught by their parents that appear to have been handed down through the ages, despite the upheavals of war, Cultural Revolution and communist rule. Experimental schools are beginning to emerge (SCMP, Jan 2002) in the China of the 21st Century with a return to principles embodying Confucian Elements (see Figure. 3).

For example, Sheung Tao Experimental School is seen as revolutionary by the mainstream school system and is attempting to return to a traditional system of learning and discipline requiring of its students the five elements listed, namely:

- Benevolence,
- Righteousness.
- Rites.
- Wisdom (or justice).
- Integrity.

Compare the Confucian Principles listed by Gabrenya and Hwang (1996)

- **Ren** – Benevolence
- **Yi** – Righteousness
- **Li** – Propriety or Courtesy

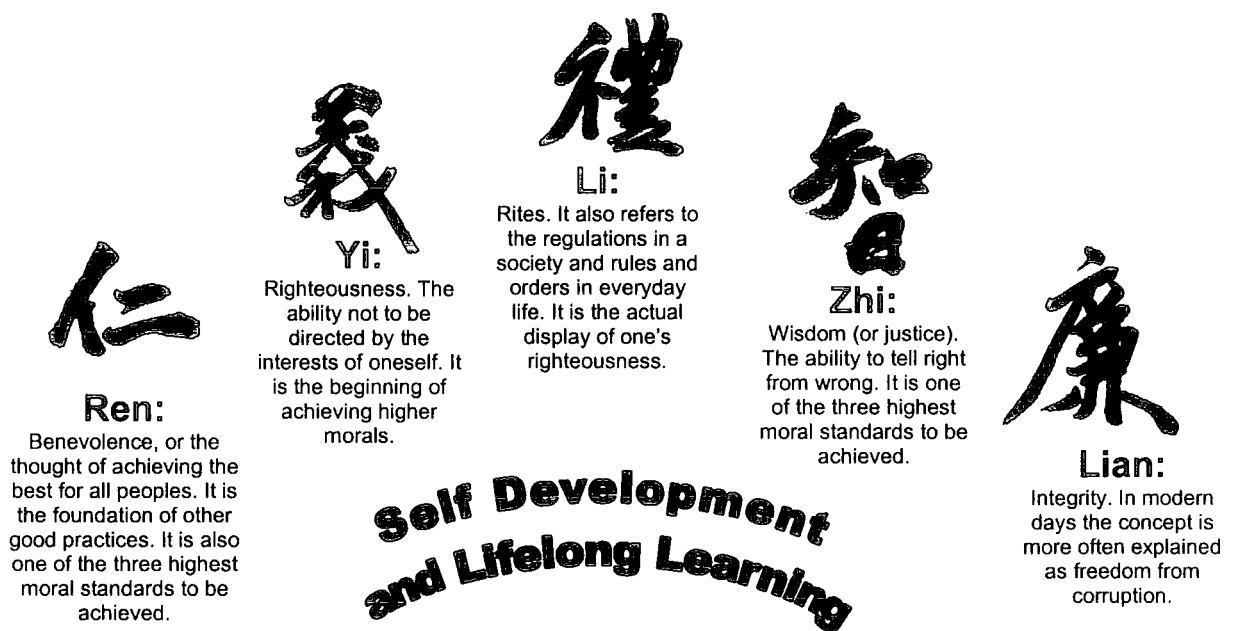


Figure. 3. The Confucian elements that underlie the modern classic education at the Sheung Tao Experimental School, on the outskirts of Beijing (SCMP, Jan 19. 2002)

The learning promoted by this experimental school involves an understanding through repeated recitation, perceived in the West as rote learning, which was the norm in Chinese imperial times. The five elements follow the items of Confucian philosophy listed above and underlie all learning at that school. Paul Mooney (2002, See Appendix 1) gives a fuller explanation of the lengths parents are willing to go to in returning to traditional values in Chinese society. The trend, according to Mooney, is spreading, with a new affluence which seeks to redress what they see as a lack of morality in their children, a morality which Confucius promoted in past times.

Visits by the author, to both primary and secondary Hong Kong schools, in March 2003, showed an influential proportion of mainland children in each class (see also HKSAR Statistics, 2002). These children bring with them cultural attachments which affect and determine the types of teaching and learning that goes on. Much of the difficulty experienced by the teachers interviewed, stems not only from language issues, but also from the previous school experiences of their students and different parental expectations.

Perceptual and Cognitive Development and the Chinese Learner

The research of Hoosain (1986), on Chinese perceptual and cognitive processes, suggested that there was no indication of any significant, racially unique perceptual

attributes across cultures. Jong-Tsun Huang (1996) found similar results and whilst asserting that Chinese perceptual and cognitive attributes did not differ significantly from other cultures, stressed a cautious evaluation of those findings until further studies are evaluated. Huang describes these attributes in Chinese people as being indistinguishable from other people's. Information processing in Chinese people remains uncertain, but indications from Hoosain's and Haung's studies would suggest that perception and cognitive ability are the same as other people's. This suggestion helps in formulating pedagogy and learning strategies for the present study.

Peter Doolittle (1997), in his paper "Vygotsky's zone of proximal development as a theoretical foundation for cooperative learning", argues that collaborative learning can accelerate a student's cognitive development. Doolittle discusses these issues in association with Western people's cognitive and perceptual development being so similar, shedding useful light on the developmental processes of the Chinese student learners in this study.

Doolittle, whilst utilising Vygotsky's 'zone of proximal development', provides a conceptual framework and describes what he suggests are the five basic tenets of collaborative learning, namely:

1. positive interdependence,
2. face-to-face interactions,
3. individual accountability,
4. small-group and interpersonal skills,
5. group self-evaluation.

Cooperative and collaborative learning and Chinese Society

Cooperative and collaborative learning, suggests Wittrock (1978), allows the learner to cognitively rehearse and restructure information, thereby retaining it in memory and incorporating it into existing cognitive structures. According to Biggs and Watkins (1995, p.149) the Chinese metacognitive learner builds this learning structure whilst reaching consensus and understanding with others. An effective way to cognitively rehearse and restructure the input of information to achieve understanding is to explain the learning material to a collaborator or to team members (p.149). According to Lee (1996), the Chinese learner carries out his/her own cognitive rehearsal by immersing himself or herself in repetition exercises often described by Westerners as rote learning (Biggs, 1996, p.270) and, in so doing, the Chinese student reaches cognitive growth and understanding possibly in a different way from those students in the West (Lee, p.25). The Chinese student first must build metacognitive understanding through strategies of

recitation in order to 'get it' (Lee, 1996, p. 25) before explaining it to other group members.

Despite the assertions of Wittrock (1978) regarding the use of co-operative learning and the benefits derived therefrom, the absence of group work in most Hong Kong schools is surprising considering the fact that it seems there is a natural predisposition for Chinese people to work in groups (Tang, 1996). Tang, in discussing this predisposition also suggests that Chinese society is so used to close-packed conditions that they prefer to work in groups and she highlights the effectiveness of group work in Chinese society by pointing out that collectivism is a strong element in leading to community success. A recent study carried out by Chan (2001), found that, in Hong Kong primary schools, cooperative learning, or group work, or working in teams, were not popular amongst those teachers. There was a marked difference, says Chan (2001) in the effective use of cooperative and group work between lower and upper primary. It seems that pressure of examinations is cited as the reason for not making more effective use of co-operative learning strategies in the upper primary school.

Lau and Yeung (1996) make reference to cognitive development as an integral part of Chinese psychology. They point out that too much emphasis is placed by academics from Western as well as Chinese backgrounds on a Confucian tradition that may be nothing to do with present day China. Hestler's (2001) findings suggest that Lau and Yeung may have a point, as Hestler found with his students that the school system did not equip students with an understanding of Confucian principles. Lau and Yeung talk of a 'dark side' of Confucian philosophy which drives Chinese parents to strictly enforce homework and study. They describe Cherry (1993) as correct in asserting the education in most Asian countries as an 'Exam Hell' which has so pressurised Asian students that there is a rising suicide rate in Hong Kong amongst Chinese students in primary, secondary and tertiary levels of education. The same point is emphasised by Chan (2000) who reported in his study of Chinese students in the U.K., Hong Kong and in the U.S.A. that parental pressure had created a 'failure or shame culture', terms described by Dweck, (1992, p.275), amongst Chinese pupils who succumb to the pressures of school and examination failure and commit suicide.

Johnson and Yau (1996) discuss the importance of Chinese student reading ability and the problems encountered as they progress through school and tertiary education. They term the difficulty as a lack of ability in 'lexical' processing, especially problematic using the Chinese system of characters. If unfamiliar with certain words or phrases

(Chinese characters), the 'lexical processor' will rely on his/her 'world view', general knowledge of the subject or language, to guess at the interpretation of the text. Unfortunately, say Johnson and Yau (1996), this general knowledge can often be misleading and lead to confusion which often results in the student '*getting*' a picture different from that which was intended in the original text. However, poor or inefficient lexical student processors can progress through the education system unnoticed, as their knowledge is sufficient for the memorisation tasks required of them (Johnson and Yau, 1996). This is naturally a major drawback when they encounter the deeper processing exercises required of them during their tertiary education. Ming (1996) mentions this when highlighting the difficulty in learning the thousands of Chinese characters needed to properly understand both written and spoken Chinese which has been a problem through the ages. Memorisation, suggests Ming (1996), and rote learning were needed in subliminal or deep memory retention of that specialized knowledge.

The Chinese Learner and Society

Authors such as Lee, (1996); Lee (1998); Tang, (1996); Biggs, (1995); Biggs and Watkins, (2001), agree that elements of Confucian philosophy do provide an element of guidance for societal attitudes in Hong Kong, creating aspirations and high expectations for schooling and higher education. Sue and Okazaki (1990), refer to those aspirations as 'relative functionalism' (p.913), whereby Chinese families in America demonstrate 'high authoritarian' tendencies, pressurising children to succeed in their educational endeavours. Those Chinese American families define success in educational terms, as a key to upward mobility. The 'Chineseness' (p.919) of those Chinese American families embraces the Confucian principle that, if one is to succeed, one has to put in great effort and education is seen as the basis for success. The Chinese fundamental principles espoused and defended by Hong Kong academics do not so much defend Confucian principles as use them to explain away some of the Western '*round eye*' (Biggs *et al*, 1995) perceptions of the Chinese student. Biggs (1996, p. 47) talks of these Western perceptions as embracing rote learning, cramming, possible collectivist tendencies and associations when learning, non-competitiveness, being both passive and compliant, having an examination paranoia, and in Sue and Okazaki's (1990) description of 'relative functionalism' (p.913), in achieving the means for mobility and therefore meeting requirements for entry to tertiary education.

Chinese society, according to Bond (1991) encompasses a set of five principles that are universally attached to being Chinese. Gabrenya and Hwang (1996) make a similar listing when specifying Confucian principles. The *first* and major principle is probably

the authoritarian family, which is one that enforces strict obedience to parents, to authority, and by which children owe fealty to their parents for life. The *second* principle determines obligations that are due to other members of the immediate and extended family. The *third* principle is the loyalty a person owes to important groups of which he or she is a member. This can include school groups, class groups, and housing estate groups. Social involvement operates with decreasing importance as ever-increasing circles extend away from immediate and extended family. The *fourth* principle revolves around the obligation to maintain social harmony, harmony being defined by an absence of overt conflict rather than interpersonal good will. The *fifth* principle is seen as the need for individuals to preserve the ego of self and of others during social interactions – the gaining and giving of ‘face’.

Five Principles	<div><div>1. Fealty to parents.</div><div>2. Obligations to family.</div><div>3. Loyalty to a person or important groups.</div><div>4. Maintain social harmony.</div><div>5. Preserve the ego or face of self and others.</div></div>	<div>Based on Confucian Principles or beliefs</div>
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Nina Borevskaya (2001) focuses on *four maxims* of Confucian ideology that have hindered focus on the individual in education in China through the troubled 20th Century, namely, that:

1. The individual should not be singled out.

2. Humans are by nature alike, only learning makes them different

3. The individual should struggle against feelings and subdue human desires

4. Priority should be given to social relationships and love for others.

Bond (1986) suggests that Chinese society is built on a universal preference for authority and authoritarian leadership whose structure, and influence over the forces thought to invite chaos, determine a society that is innately conservative. This is not conducive to self-directed teams or empowerment models of learning that the Hong Kong Educational Reforms (2001) are promoting for teaching and learning in the 21st century.

Confucius and Chinese Learning Styles

Lee, (1996) stresses the emphasis of Confucianism on reflective thinking requiring a spirit of enquiry and open-mindedness. Lee explains in more detail the intention of the Chinese learner by quoting Chu (1990) who says that:

“generally speaking, in reading, we must first become intimately familiar with the text so that its words seem to come from our own mouths. We should then continue to reflect on it so that its ideas seem to come from our own minds. Only then can there be real understanding. Still, once our intimate reading of

it and careful reflection on it has led to a clear understanding of it, we must continue to question. Then there might be additional progress. If we cease questioning, in the end there'll be no additional progress". (Chu, 1990, p135)

This is of particular interest as it highlights a methodology, or mechanism of learning, which risks being regarded in a cursory way by many Westerners who might conclude that rote learning is dominant when in fact it is simply another way to understanding for the Chinese learner.

This style of learning was a common feature in Western schools (Watkins and Biggs, 2001) until well into the 1960's when, for example, children were expected to learn and reproduce literature texts for the 'O' and 'A' level examinations in the United Kingdom. The examination system of the time relied heavily on what might be described as rote learning. The author cites this from his own experience and that of colleagues of similar age who underwent their schooling in different English counties during the 1960's.

Lee (1996) and Biggs (1991) espouse Confucian principles, and deep understanding through reflection and repeated reading, as a learning strategy. This is a strategy that continues to attract much discussion as Hong Kong introduces massive education reforms that focus on child-centred learning (HK Government, Curriculum Development Council, 2001). This is an argument put forward by Morrison (1998) for quality schooling, under the umbrella of Total Quality Management (TQM) which would lead to improved and enhanced educational outcomes.

Biggs (1991) gives the reader a broader understanding of Confucian philosophy in his observation:

"Confucius himself sees learning as deep: 'Seeing knowledge without thinking is labour lost; thinking without seeking knowledge is perilous' [*Analects* II.15]; his methods were individual and Socratic, not expository; his aim was to shape social and familial values in order to conserve a particular political structure. These do not appear particularly conducive to surface learning".

Lee (1996), in further discussing Confucian principles, talks of will power, self-determination and family tradition in a way that indicates that all East Asian learners are so immersed in the Confucian tradition that actual mental and physical effort are seen as essential elements in the perfection of self and of life-long learning. A weak-willed person making no effort is doomed to failure, but if a learner tries and keeps trying he/she will '*get there*' (Lee, 1996, p. 39) sooner or later.

Much of the Chinese learner's drive to succeed is based on securing the future well-being of the family and being able to contribute significantly to the security of immediate family (Bond, 1986). Lee (1996) also makes the point that, in traditional China, an element of Confucian philosophy was evident in the student's desire to gain higher social status through education and hard work. Through hard work and study, apparently unknown and often obscure people in ancient China gained social prominence in increasing numbers in the period between 722 and 221 B.C. In that period, 6 % of those people who became students, attained high social status through hard work and study. In 221 B.C., 74% of such students managed to gain a prominent position in society. These 'success stories' (p. 38) continued through various dynasties giving the general population the idea that educational success was the way to a more secure future and social status for the student and his family. The harder an individual studied in the Qing dynasty, the more likely a secure future for oneself and one's family became. The egalitarian precept that you can achieve it if you want it remains the backbone of an extraordinary emphasis on effort, willpower and concentration in the Confucian tradition.

Confucian tradition, combined with Hong Kong's own cultural heritage, is a powerful influence on Hong Kong schooling, its graduates and society's expectations of the education system. Lee (1996); Lau and Yeung (1996); Lau (1996); Watkins and Biggs (1996) and Biggs (1991), draw on these comparisons of Hong Kong culture, the Confucian influence on schooling and what successful schooling can do for the family and individuals. Lee (1996) suggests that in Hong Kong many teachers still maintain a Confucian focus in their treatment of children and demand appropriate role relationships according to traditional values and respect.

Another relevant cultural aspect of the Chinese learner is that of filial piety. Carless (1999) identified this as appropriate and normal behaviour in the Chinese culture, the utmost respect for authority, seniority and the support of elders being ingrained from early childhood. This attitude, it is claimed, permeates the classroom where the teacher according to Hofstede (1991) is perceived as 'Guru', and strict classroom order expected with pupils only speaking when invited. This contributes to a process of degenerating individualism in the students, as their *opinion* is rarely if ever sought. In some cases, due to the 40+ normal class size, it is reported that only their desk or school number sometimes identifies students, in a rather demoralizing and inhuman manner (Biggs and Watkins, 1996). Biggs and Watkins also stress the point that, in Chinese tradition, pupils who questioned were showing disrespect for the teacher and,

as a result, both pupil and teacher lost 'face'. Questioning continues to be a strategy that is not always encouraged in Hong Kong schools.

The Provision of Education in Hong Kong in the latter part of the 20th Century

Until the latter part of the 20th century, the colonial authorities did not provide either primary or secondary schooling for the majority of Chinese children in Hong Kong. Their only option was private schooling and many Chinese families could not afford to send their children to such schools (Ming, 1996; Sweeting, 1990). The need for change, and the pressure from an expanding Chinese population, eventually saw a rapid Government sponsored expansion in the provision of primary and secondary education in the 1960's and 70's. The expansion was essential for the provision of better educated workers for the explosion of industrial development in the decades prior to the 21st Century and with a view to overcoming the chronic shortage of suitably qualified people (Hong Kong Government, Education Commission, 1997).

At about the same time as secondary school places became available to the majority of Chinese children in Hong Kong, the University Grants Committee and the University sector were prompted to embark upon an expansion of tertiary facilities and places. The higher education sector also engaged in long-term plans to meet all of Hong Kong's intellectual and managerial needs by the turn of the century (Watkins and Biggs, 1996).

The university sector, by stepping in at a crucial time, expanded to satisfy their own desire to supply tertiary-level education and to secure the future supply of managers of arguably the most dynamic commercial centre in the world. The unfortunate consequence of this was a great emphasis on secondary school students reaching a high standard in their final 'A' Level examinations (Watkins and Biggs, 1996). It became something of a family ambition that the child should reach this perceived high standard so as to secure, through education, as in traditional China, the future well being of the family. Much of the effort to pass such examinations was applied to the memorisation of the texts available in schools (Watkins and Biggs, 1996). This system has permeated the past three decades and continues to be the major, parentally-accepted mechanism today to launch their children into a successful career. Progression from one educational step to the next is determined by success in a series of examinations requiring the memorisation of knowledge. A possible consequence of such an examination system was that students were pressurised into 'rote-learning',

the Western perceived label, which remains attached to the Asian learner (Watkins and Biggs, 1996).

As in imperial China, examinations continue to dominate the educational culture of Hong Kong in the 21st Century. The majority of students, then as now, continue to fail the rote-learning based examinations and are deemed failures by the family and by society. The Education Department of the Hong Kong government, realising the shortcomings of the education system, and recognising that teaching strategies are often firmly embedded in a traditional rote-learning pedagogy is pushing for change through the recently implemented Education Reforms (Education Commission Report No.7, 1997, and Review of 9-Year Compulsory Education, 1997). The Education Department cites teaching deficiencies, rote learning, and student inability to be flexible or to problem-solve and to learn to work with and communicate with others, as the bases for educational reforms. Students in Hong Kong schools are being encouraged to go beyond rote learning as a means to successful examination performance and teachers are being encouraged to alter pedagogy in their classrooms to enhance student learning and to create deeper understanding of the subjects being studied.

The pressure of population increase created tremendous competition for places in education at all levels in Hong Kong resulting, in the late seventies, in morning (AM) and afternoon (PM) primary schools, with two completely different staffs operating separately out of the same premises. This situation is gradually changing, but class size remains a problem with frequently over forty children in primary and secondary school classes (HKSAR Statistics Office, 2000). The Hong Kong birth rate indicates that, by 2005, class size will be reduced to around thirty (HKSAR Statistics Office, 2001). As a result of the demanding and competitive examination system, the most recent decade has produced an increasing number of graduates from secondary schools whose aspirations for a place at university are disappointed. The system, according to the Hong Kong Government, Education Commission (1998), promotes the reproduction of memorised material, which, in turn, encourages the predominance of teacher-centred learning. The Hong Kong Education Department, dissatisfied with the system for a number of years, proposed and introduced their objectives for creating a better learning environment in schools (Education Commission report No. 7., 1998). In the report, the Government recognised that the education system was not delivering, as it should, an education that was both fair and objective for every student:

- That most pupils were not receiving the level of education that was thought desirable for an ever-changing world.
- That there was little preparation for the transfer of knowledge or career changes
- That the teachers did not use a student-centred approach

- That the examination system was recognised as unfair for a large percentage of students

The Hong Kong SAR Government Education Reform calls for teachers to disassociate themselves from purely 'traditional' teacher-centred lecture style methods of teaching in Hong Kong and to introduce alternative pedagogical approaches (Hong Kong Government, Curriculum Development Council, 2001) that are both constructivist and promote a philosophy of life-long learning.

Educational Provision for Girls – Gender Issues

Cheung (1996) describes the role of the Chinese female through the ages and is vociferous in her descriptions of present-day *gender role development*. She highlights the lack of importance given to female education, the responsibilities of the female role in the family and the daughter's obligations to her parents and her brothers. Educational achievement, says Cheung (1996. p.47), is still primarily the province of boys rather than girls, girls expected to sacrifice their own aspirations for those of their parents for their sons. Adeline Mah (1997), in her book, "Falling Leaves", makes reference to Confucius who, she says, professed that "only ignorant women are virtuous" (p.14), as she describes the attitude of a middle-class family towards the education of its daughters at the turn of the 20th century. If a Chinese family has two children, one boy and one girl, the boy will always receive preference in education and in parental and family support.

At the beginning of the 20th Century, at the time when the imperial design of education under the Qing Dynasty was ending, government education planners made no formal provision for the education of girls (Bailey, 2001, p.318). Education for girls, according to Zhang Zhi Dong, the governor-general of Hunan and Hubei and one of the main architects of the 1904 education reform, should be restricted to the family environs where they would receive the training that befitted a woman and her future in-laws. In 1907 the education of girls was eventually accepted, if somewhat reluctantly and in a small way, with the opening of the first girls schools offering curricula focused on family and household skills such as knitting, sewing and handicrafts (Bailey, 2001, p. 319). It was not until more than a decade later that secondary level education was to be offered to girls in a limited way, so as to provide better mothers, housekeepers and wives for their future husbands. Heidi Ross (2001) in 1995 describes Chinese leaders in the mid 1980's as having little interest in girls education in China, but that, in the 1990's, Chinese economists declared girls' education and schooling as having the "highest return interest" China can make. Ross also talks of the daughters of China as

the 'magic bullets' (p.376) of future Chinese development. Thus, it was only in the latter part of the 20th Century that female education was recognised as an important element in national development.

Whilst education in China expanded from the 1900's, the political disruption throughout the millennium restricted a full nine-year education to those families who could afford the school fees or charges for school services (Ross, 2001, p. 377). The predisposition of families through the last decades of the 20th century to favour boys over girls remained a factor that effectively stifled girls' aspirations for advancement or high level employment or study. Apart from elite schools, which worked very hard to provide a wider education for girls, there was little commitment to raise girls above a superficial level of education (Ross, 2001).

The education of girls has taken on new meaning for many families in China, the one-child policy making families rethink their priorities. This has resulted, says Ross (2001), in an exponential expansion of private schooling since 1993, for both boys and girls, thus providing "a route to social mobility entirely outside the state-run education system" (p.395).

The 1990 signing by China of the declaration to "target" female education as an urgent priority at the UN sponsored 'World Conference on Education for All', has resulted in an increased focus on female education in China. China's promise to, 'target' female education as an urgent priority was recognition, says Ross, that "girls" were the 'linchpin of development' (UNDP, 1990). However, cites Ross (2001), much of the vocational education offered to girls in Beijing in the late 1990's focussed on the 'special characteristics of Eastern women' and continue to be "very gender-stereotyped" (p.397) and concentrated very much on service industry positions such as secretary, receptionist, telephonist, tourist guide and other positions where female attributes are used to enhance business prospects.

The Hong Kong government statistics also show an employment trend, from the 1970's to 2000, of male graduates from secondary schools joining the business sector where salaries were high. Female graduates were seen to be following a more stable and 'safe' passage into civil service employment through teaching, a job with long term stability and security, though less well paid than the money-making ventures undertaken by their male counterparts. This is an important consideration for the study since over 90% of student teachers in Hong Kong are female (Hong Kong Government, Statistics Office, 2000), although this figure has lessened somewhat in 2001 due to the

economic downturn in the Asia region and stands at nearer to 80% in the present academic year (Hong Kong Institute of Education Statistics, 2001).

Questions arising from the Literature on Chinese Learners and Teaching

The literature highlights the dichotomy regarding the traditional Chinese Learner and the Chinese Learner in Hong Kong today. Lee (1996) talks of the individual and loyalty to family and close friends and Ming (1996) describes an education system which for over 1000 years, was enmeshed in an examination culture, the rewards of which were personal and family advancement. Bond (1986) examines in great detail the vestiges of Confucianism, requiring of the individual hard work in order to succeed, that continue to permeate Chinese thinking today and Tang (1996) confers on Chinese people an adherence to collectivism, the individual working best in a collective situation. Lau (1996) talks of individual achievement in the present day Hong Kong and the competitive environment in which Chinese learners in Hong Kong find themselves.

Successive educational reforms in China, from the beginning of the 20th Century, but especially after 1949, saw socialist party ideals attempt to merge Confucian principles and virtues with loyalty, duty and obedience to those in power and to the State (Yuan, Z., 2001). What appears to have happened is confusing, and the following questions emerge:

- Is the Chinese learner concerned primarily with individual effort and family advancement?
- With such wide discussion on individualism, examination pressure, constraints on asserting oneself and competition for tertiary placement, is there any place for working in cooperative learning teams?
- Where does the Confucian tradition of thoughtfulness and care for those around us fit in with the education system in Hong Kong today?
- Is there any connection today with the China of the past millennium where teachers were those scholars who failed the district, provincial or imperial examination?
- Does filial piety play a part in student teachers deciding to follow a career in education in Hong Kong today?
- Traditionally girls in China were not educated and certainly not given equal treatment with boys. Does this have any implication for student teachers in the Hong Kong of today?
- Does the fact that many of today's learners in Hong Kong are third culture children have any effect when it comes to choosing to become a student teacher?

Hong Kong, according to Lee (1996), continues to espouse the tradition of Confucian principles in education, her students learning in different ways from those students in the West, and still very much attributed to memorisation or rote learning. Postiglione and Lee (1997) posit that Hong Kong remains very much shaped by traditional Chinese values, but that she has been greatly influenced by, and westernised through

commerce, technology and the media. This point was made by Benjamin Li (2000) whose study was based on student teachers at the Hong Kong Institute of Education as he examined pedagogical content knowledge of trainee teachers whose major was teaching English. The continued assertion by Lee and others that Confucianism is embedded in the Chinese learner in Hong Kong today does beg the question whether there are some apparent gaps in the knowledge base, held by researchers, of Chinese learners (Lau and Yeung, 1996). Chinese student-teachers in Hong Kong today are 'Chinese learners' who nevertheless display elements in their approach to learning promoted by the Education Reforms (2001).

This background to the Chinese learner serves an important function as the following chapter deals with the motivational factors influencing Chinese learners; a sense of the examination culture and its resultant failure rate; a sense of where student teachers are coming from; a feeling that more could be done in educating teachers into being more aware of the needs of their students; a need to address not only societal needs for student placement for promotional purposes, but critical thinking and a deeper understanding combined with a practical applications approach to learning; a feeling that Chinese learners are confused by being pulled in one way for family and fellow man and in another by the need to succeed individually. The issue of motivation will also be addressed through a discussion of the strategies that would embrace 'quality learning', collaborative learning leading to learning teams and, finally, to pedagogy that would engender motivation and quality, enhanced self-esteem, self-confidence and a professional attitude to teaching which would influence schooling and pupils in Hong Kong through the coming decades.

Some of issues that emerge have been illustrated in Figure 4.



Figure: 4. Model illustrating those questions that emerge from the literature review 1

Chapter 3

Literature Review: 2 Motivational Influences on Student Teachers in Hong Kong

Introduction

Chapter 2 served to highlight some of the issues which underlie the present day education culture in Hong Kong: rote learning, examinations, success or failure at school, the place of girls in a society where failure is not an option and family honour and 'face' are very much at stake.

The Chapter also provided an overview of the dilemma of the Chinese learner in Hong Kong, who, on the one hand, is enmeshed in a Chinese tradition which clings rigidly to a contemporary interpretation of Confucian ideals which have evolved into a rigorous and competitive, examinations-based approach to tertiary education. Rote-learning, seen in Confucian teaching as a road to deeper understanding, takes on a more pragmatic role in present-day Hong Kong as a means-to-an-end absorption of information.

Chapter 2 also focused on the teaching and learning experiences of the student-teachers in their own schools and Chapter 3 will examine these experiences in relation to motivating the student-teachers in their chosen field of study and career.

The Chapter will examine in detail the influence of Confucian teaching, the collectivist tendencies suggested by Tang (1996), the Hong Kong examinations system and the Hong Kong cultural mindset regarding teaching and learning (Watkins and Biggs, 2001, p.4).

The literature under review focuses on motivation, the use of teams, learned helplessness, the educational definition of quality and the use of collaborative and problem-based learning.

The Chinese Learner and Collaborative Learning

The Curriculum Development Council of the Hong Kong SAR Government (2000), 'Learning to Learn' document, goes a long way in specifying this learning-to-learn direction, in terms of child or student-centred learning, encouraging motivational strategies and innovation in pedagogy and alternate or fresh approaches to teaching and learning.

According to Watkins and Biggs (1996), encouraging student motivation to enhance quality learning has increasingly become an issue with Hong Kong educational policy-makers and has led to motivational issues being included in the recently introduced Curriculum Development Council (2001), 'Learning to Learn' which promotes student-centred learning. The Education Reform documents also specify a move to a more formative and authentic assessment system. The evaluation of student performance through individual merit and continuous assessment techniques, together with some formal examinations, is replacing the previous traditional reliance on examinations (see p.55).

Chang (2000) talks of the paradox researchers are faced with as they address "vernacular Confucianism" which she describes as the common beliefs about the nature of teaching and learning that are held by Chinese teachers, parents and students. She cites specifically parental attitudes in Hong Kong that include persistent and widely held views viz:

- Children are spoiled if praised,
- Scolding builds character in children,
- Failure is the result of laziness,
- educational processes in the classroom require sacrifices of the learner

Chang (2000, p.125) suggests that the 'Western view of the Chinese learner, and their motivational strategies, stems from a decade or more of the "flavour of the month" syndrome'. Many of those Western researchers and educationalists, Chang accuses of defining Chineseness as a "deviance" from Western norms which are determined by Western psychologists who look for, and find, "Chineseness in all the wrong places". Chang (2000) defends the view, as does Lee (1996), that Westerners cannot 'see' inside the culture of Chineseness, and suggests Western researchers seldom look beyond the norms of Western psychology in the use of their research instruments, and, therefore, findings and conclusions must of necessity take on a Western perspective. Watkins (1996b), however, argues that the development of the "Learning Process Questionnaire" (LPQ) and the "Study Process Questionnaire" (SPQ) (Biggs, 1987), and

the "Approaches to Study Inventory" (ASI) (Entwhistle and Ramsden, 1983) are appropriate for both Western and Asian students.

Watkins and Biggs (2001), in their book "The Chinese Learner" (1996) highlight some of the "differences in perception and interpretation of educational issues between East and West that lay in the culture rather than in the classroom", and suggest greater attention to the investigation of the "teaching culture inside classrooms in Hong Kong" to determine what Hong Kong teachers and students might have going on inside their heads (p.4).

Paul Chan (2001), in his Doctoral study on cooperative learning in schools in Hong Kong, Singapore and Macau, found that the teachers who contributed to his study were not convinced that cooperative learning increased student motivation; in fact he says, it was thought to decrease motivation as the children would not work as hard or be as committed as if they were working independently (p.187). He suggests that this attitude might be inherent in many teachers in Hong Kong primary schools whose underlying view of education appeared to be that the student needed to work hard to succeed, accepting the Confucian principle regarding hard work and success. Chan also cites examination pressures as having an adverse effect on teachers' perception of what pedagogy to follow in the classroom. Watkins and Biggs (2001, p.15) mention the adverse effects on teachers' pedagogy as frequently being influenced by a local 'small town' culture in Hong Kong where parents opposed to innovation tend to complain directly to District Education Officers who then feel obliged to direct teachers to a pedagogy which adheres to traditional methods.

Conversely, Catherine Tang (1996), suggests the Hong Kong tertiary learner is not restricted in the same way as the school student and tends to "spontaneously collaborate" with peers. She does, however, point out that this happens to a greater extent outside the classroom.

Cheung and Kau (1979) emphasise the collaborative tendency of 'Chinese children, as they grow older, to show increased readiness to cooperate on a task. Chan and Watkins (1994) are also of this opinion, their findings indicating that Hong Kong students prefer a more collaborative learning environment, which the students see as promoting deeper learning. Salili (1996) notes that Chinese students work harder together than when working alone. Ferguson (2000, p.325), cites the importance of such peer relationships as a basis 'for motivational learning'. Paul Chan's (2001) study

contradicts these opinions, citing reluctance in teachers to embrace such cooperative learning strategies in their classrooms.

The Chinese culture emphasises social relationships and collectivism (Watkins and Biggs, 1996, p.188) that encourages cooperative learning strategies. One such teaching / learning strategy that appears to be used quite extensively in Hong Kong schools and, apparently, quite successfully according to many teachers, is peer tutoring. Peer tutoring, usually carried out as an after school activity in most Hong Kong schools, is described by Winter (1996) as having a positive and beneficial effect on the children in collectivist cultures in East Asia. It does, however, suggests Winter (1996), 'require the teacher to become a manager of learning rather than a provider of information' (p. 221). Teachers in many Hong Kong schools agree that peer tutoring has a positive, motivational effect on both tutor and tutee (p.228), such schemes usually referred to as 'Big-Brother, Big-Sister' schemes (p. 236). Most tutors are volunteers, most tutees are those students in need of extra help and the main subjects involved are English and Chinese reading (p. 236). Unfortunately the tutees are often seen by their peers as less able than themselves and are treated accordingly. Research studies by Winter confirm some benefits from this strategy, but, says Winter, such tutoring is found by teachers to be difficult to organize if a high level of motivation is to be maintained. The benefits might be greater if the school curriculum encouraged more far-reaching peer-tutoring inside normal class hours, but that would require extensive teacher professional development (p. 237). Moreover, the stigma attached to the so-called beneficiaries of the system would have to be removed for the tutees to benefit fully.

Obstacles for the Chinese Learner from Family Expectation and Pressures

For a large number of Chinese student teachers attending the Certificate in Education Courses at the Institute of Education, 'A' level examination results were in the 'C', 'D' and 'E' range (Institute on Education Statistics 1997, 1998, 1999, 2000; Li, 2000, p.54). This is below the level required for entry to the much sought-after top universities; hence, it is not a sound basis for an enthusiastic entry to a career in teaching. Benjamin Li (2000), in his study, found similar traits in the student teachers of English from the Institute of Education on which he based his research. Li (p.190) found that the student teachers were 'disadvantaged by poor pedagogical content knowledge of their major subject area' and also by cultural influences derived from traditional Chinese values and contemporary beliefs about education in Hong Kong. The student background, suggests Li, and also their lack of belief in their own capabilities and confidence in using the English language, showed a 'linguistic incompetence' (p.189)

which affected everything that they did in the classroom. Li posits that his study did not concentrate on cultural issues and their effects on Chinese student teachers in Hong Kong and suggests further study in this domain is required.

The achievement motivation of many Hong Kong students is described by Ho (1986, p. 30.) as being provided by family and parents who put 'pressure on students to study hard and do well in examinations', a situation which is 'notorious in Hong Kong, regardless of the educational level of the parents'. Many parents see their child's achievement as a matter of family 'face', much more so than Westerners do. 'The upshot, say Watkins and Biggs (1996), is that Chinese students are much more likely to accept personal responsibility for their successes and failures than their Western counterparts' (p.275) and, while students are encouraged 'to work harder and harder, they are likely also to feel guilty and to be blamed by their teachers and parents if failure results' (p.275). Ferguson (2000), discusses student performance in relation to how performance is perceived by others and how performance is largely 'determined by effort (and also that) ... performance is likely to be influenced by the *level of aspiration* (LA) and the *level of expectation* (LE) in each student.' (p.217). This point is also made by Watkins and Biggs (2001). Ferguson (2000) makes reference to Kurt Lewin et al (1944) whose study on performance goals stimulated others (Locke and Latham, 1990) to label the different levels of goal differentiation:

1. Level of aspiration (LA)*student would like to attain.*
2. Level of expectation (LE)*student expects to attain.*

Ferguson (2000, p.222), discusses two types of goal attainment put forward by Heyman and Dweck (1992), in terms of:

- (a) *Performance Goals* – where the student is seeking to **prove** his/her competence and
- (b) *Learning Goals* – where the student is seeking to **improve** his/her competence,

Ferguson talks of the *learning goal* being endowed with a defensive quality, which drives the student to take the attitude - *I'll show them*, which involves the learner in testing him/herself and seeking to confirm adequacy on the basis of performance. However, Dweck (1991) suggests that this can lead to two alternative motivational styles, namely:

- (1) an encouraging motivational style in which one type of child will work harder to attain better results (the defence is in working harder – *I'll show them*)
- (2) a demotivating style which causes the student to be discouraged and become defensive about his/her ability (to become belligerent and give up trying).

A demotivating style, says Dweck, (1991), relates to a quality of 'helplessness' which a young child can develop as s/he enters pre-school and adopts a defensive disposition. Mastery orientation in students results from focussing on the process of a task, rather than its product, and regarding failure as an opportunity for learning, rather than as evidence of personal inadequacy. According to Dweck (1991) and Watkins and Biggs (1996), students who are mastery orientated and want to prove themselves, succeed if they go over the materials enough times, but, while mastery might be achieved, deep understanding is not necessarily ensured (Watkins and Biggs, 1996. p.171). This defensiveness and mastery approach, according to Ferguson, are survival strategies, aimed at satisfying the expectations of teachers and parents and leading children to constantly strive to prove their competence and achieve performance goals. Learning goals, however, suggests Dweck, (1991), generally heighten intrinsic motivation and encourage student learners to prove to themselves that they can succeed.

Students, therefore, may perceive failure in radically different ways. There is failure in which the student sees himself/herself as incapable of influencing the *circumstances* for his/her inevitable failure so s/he does not even try. Another type of failure is more to do with the student's lack of self-esteem and self-confidence which leads him/her to believe that, for him/her, success is unattainable.

The Hong Kong student learner often has to also contend with the Chinese 'shame' culture (Bond, 1996; Ferguson, 2000; Wicker et al, 1983), increasingly as they move from primary to secondary school (sometimes their second or third choice) and finally to tertiary education where they might also have to reconcile themselves to a second or third choice of university course or an education course leading to a teaching career. Watkins and Biggs (2001) point to the many pre-service student teachers in Hong Kong who have gone through this process, accruing shame and 'learned helplessness' along the way.

Watkins and Biggs (2001, p.7) cite the Chinese student learner who attempts to gain deep understanding being activated by 'a head of mixed motivational steam: personal ambition, family face, peer support, material reward, and, yes, possibly even interest'. This axiom fits well with Beck's (2000, p.27) 'Hedonic Axiom' which he describes as a continuum which assumes that 'at any given moment, there is an ordering of events along a continuum ranging from very aversive, through neutral, through very desirable'. The concept of the hedonic continuum leads individuals to choose a path of least aversion, the easiest option (p.28). Beck lists some motivational concepts that fit under the umbrella of desire and aversion:

Desire

- Need for achievement
- Positive incentives
- Rewards
- Cognitive consistency
- Love
- Hope for power
- Relaxation

Aversion

- Fear of failure
- Negative incentives
- Punishers
- Cognitive dissonance
- Fear
- Fear of power
- Stress

Beck (2000, p.31) argues that Maslow's (1970) 'Hierarchy of Basic Needs' is at fault as he asserts that individuals fulfil needs in different ways and not necessarily in the order that Maslow suggested from basic needs to higher level needs. Beck (2000, p.425) stresses McGregor's (1960) theories of 'X' and 'Y' individuals whereby;

- Theory 'X' assumes that people dislike work and therefore must be coerced or controlled and directed towards goals, and
- Theory 'Y' which emphasises people's intrinsic interest in their work and their desire to be self-directing and to seek responsibility.

Beck (2000, p.3) directs our attention to psychological hedonism which he contends individuals follow because they 'seek pleasurable experiences'. If teaching methods can provide Chinese student teachers with such personally worthwhile and achievable experiences, and if Beck's assertions are correct, their competence and intrinsic motivation might well be enhanced and deep learning might result.

Obstacles to Collaborative and Innovative Approaches to Pedagogy and Learning

The Hong Kong SAR Government Educational Reforms (2001) in their 'Learning to Learn' publication, call for quality schooling, quality teaching and quality learning to prepare the next generation for a rapidly changing world and for people to be better prepared for career transferability in the workplace. The concept of quality is equated with working together, cooperative learning and learning in groups (Education Reforms, 2001). The Education Reforms have prompted research into most of the areas outlined in the documentation. Paul Chan (2001) has highlighted a number of elements in a recent study on co-operative learning in Hong Kong and Macau classrooms. He talks of the contradictions imposed by the Confucian culture and the values attributed to traditional education that children are subjected to in Hong Kong and the innovations promoted by the Reforms. He also highlights some negative opinions among primary school teachers (p. 185) in Hong Kong, Macau and also Singapore who tend not to make use of co-operative learning as a pedagogic strategy. Some primary teachers, say Chan (2001, p.185) and Carless (1999, p.246), have tried activity-based learning

techniques, but due to internal school pressures, a perceived overcrowded curriculum, parental expectations and an underlying belief that children ought to work hard independently in order to succeed, working in groups was seen as too difficult for most teachers to implement or evaluate (Carless, 1999, p.246). A co-operative or group learning strategy, says Chan (p.186), is more prevalent among teachers who have been teaching more than five years, while younger teachers succumb to the pressure from a crowded curriculum, the school Principal and subject panel heads, of keeping up with the weekly allocation of work and are effectively deprived of autonomy in their own classrooms (p.186). Chan also pointed out that many new teachers found that the pressure from more experienced colleagues and their principals overcame their desire to innovate, though many indicated they would like to do so.

Thomas Tang (2001, p.221) identifies a number of points regarding teacher education and the perceptions of teaching that both the student teachers and school pupils have of their teachers in the classroom. Tang describes studies which demonstrate that pupils' approach to learning is directly influenced by their teacher's approaches to pedagogy, which are in turn regulated by the conceptions of pedagogy held by those teachers (Gow and Kember, 1993; Ho, 1998; Tang, 1993; Trigwell, Prosser and Waterhouse, 1999). Teachers hold different conceptions of pedagogy and all must have developed these conceptions, says Tang (2001, p.221), 'through a certain process' (Tang, 1995). Tang's 'certain process' includes conceptions that are learned from teachers' own classroom experiences as pupils and from what they have learned as student teachers, both from their training and from the pedagogy used in their practice schools. This is demonstrated in Benjamin Li's (2000) study in which he found that student teachers' perceptions of pedagogy combined what they had learned from the Hong Kong Institute of Education and their practice teaching attachment schools where they were expected to follow the pedagogy that was practiced in that school. Li's student teachers were influenced by the pedagogy demonstrated by their lecturers at the Institute of Education, but this influence was generally suppressed due to the pressure of the practice teaching school where the student teachers were socialized into using the school's traditional form of pedagogy. However, the Hong Kong Education reforms, with their student-centred remit, together with innovative pedagogy developed at the HK Institute of Education, are attempting to redress this situation.

"Over the past 15 years, the emphasis has shifted in Teacher education, from a skill-based approach in preparing for classroom teaching to one of 'teacher thinking' and the concept of the teacher as a reflective practitioner" (Watkins and Biggs (2001, p.10). The function of this 'reflective practitioner' is to create a learning environment in which

children develop and learn. Professor Howard Gardener (2002), in a seminar in Hong Kong, on multi-intelligences in children, talked of each child being different, each child having different intelligences, each child having some special skill or aptitude and each child requiring of the teacher the employment of different motivational approaches to access an individual student's learning styles. A four-dimensional approach to each child's learning style, says Gardener, encourages teachers to try different strategies with different pedagogy, different approaches to individual students, and different teacher behaviours. Gardener was addressing an audience of educators in Hong Kong and claimed that children in Hong Kong needed to be approached in this three dimensional way. He also indicated that the educational reforms, recently introduced in Hong Kong, advocated this type of approach and, therefore, it was incumbent upon teacher-trainers in Hong Kong to investigate this further. In a Western context Adey and Shayer (1990, 1992a, and 1992b) conducted a study on cognitive development and science achievement amongst 11-14 year-old school children in England (the CASE project). Their findings suggested that cognitive development could be enhanced by different teaching styles and methods and was linked to teacher behaviours, attitudes and skills in presenting and managing the classes. The 'other' side of this suggested pedagogic strategy, a student-centred approach, is discussed by Cheng and Wong (1996, p.44) who posit that the idea of teachers working towards a more individualised approach to teaching as being '*almost inconceivable in East Asian societies*'. Cheng and Wong point to the 'traditional and Confucian' elements affecting the mindset of society in the Asian context which sets this '*almost inconceivable*' barrier.

The views expressed in such publications as Watkins and Biggs (1996); Watkins and Biggs (2001); Biggs (1998); Gardener, (2002), and the Hong Kong SAR Education Reforms (2001) challenge Cheng and Wong's premise that the student-centred approach is untenable in creating an effective learning environment.

Language of Instruction

The use of English by the lecturers and for the course materials presented another obstacle in the introduction of the innovative pedagogy and reflected the on-going debate in Hong Kong about learning English versus learning *through* English. The Hong Kong Educational Reforms, Hong Kong Government, Curriculum Development Council (2001) call for a more authentic approach to learning English, a call being addressed, for example, in the NET (Native English Teachers) initiative. What appears to have affected student teachers' attitudes towards learning English is described by Li (2000), in his study, who suggests that most student teachers "began and ended (their

education course) with similar beliefs about English as a set of rules, and also English teaching and learning as a rule-governed activity" (p.163). Li also reports that his English students "reported being bored in their English classroom which had turned them into demotivated learners and gradually a negative picture of it was developed" (p.163).

An approach to teaching had to be adopted, therefore, in which the students would not feel threatened or intimidated by the use of English. A 'zone of comfort' was created by encouraging the mother-tongue, allowing student teachers to express their ideas in Chinese and providing a group understanding of conceptual ideas in the English learning materials, before making presentations and submitting their individual assignments in English.

Motivational Consequences and Implications

Watkins and Biggs (1996), in their support for a student-centred approach in the classroom, put forward the notion that educational motivation needs to move beyond the 'achievement motivation' which is predominant in Hong Kong. Contrary to Cheng and Wong's belief that this is almost impossible in the East Asian context, they quote the example of many of China's boarding schools where close social interaction between student and teacher creates bonding and high motivation (p. 274).

Professor Andy Hargraves (1999a), in a keynote speech at the Hong Kong Educational Research Association 15th International Conference, Hong Kong, also advocates such bonding, stressing that teachers should have emotional ties with students as a means of '*reaching*' them, and, whilst he might have been talking of Western students, he advocated the same approach mentioned by Watkins and Biggs for Chinese student learners. Ferguson (2000, p.95) discusses the importance of an individual's personal feelings, the place they occupy and the effect they have on 'personal stakes, so that emotion occurs and becomes an important element within the framework set by motivation'. Ferguson also discusses the importance of peer relationships and the importance of emotions in the determination of motivation. Roderick Wong (2000, p.232) talks of 'sensory pleasure tags' in relation to "different motivation behaviour patterns which are the products of the interaction between the individual and the environment which includes fellow students". "Motivated behaviours", continues Wong, "are goal oriented and may be bifurcated by two processes, the wanting and the liking of the reward associated with goal attainment". (p.232) - a reference Wong makes to what students might 'get out of' their efforts in the classroom.

The student body at the Institute of Education is over 80% female (Hong Kong Institute of Education (HKIEd) Statistics (2001). Most participants in Li's (2000) study obtained poor examination results, some, according to Chan's (1998) study and information provided by HKIEd Statistics (2001) suffered from the 'shame' culture, learned helplessness or diminished self-esteem and others felt that they had no other choice than to attend a teacher education course. Thus a macro focus might include an examination of the literature on:

- The motivation of Chinese student teachers.
- Quality or value-added learning in relation to using learning teams.
- Cultural aspects affecting pedagogy and classroom learning.
- The incorporation of this value-added quality into the assessment process.

This discussion will attempt to explain the many factors that affect the student teachers as they embark on their teaching career and the difficulties that many of them encounter. The development of pedagogy to increase student understanding and to motivate them depends on an understanding of the issues that are to be discussed and how to engender self-perception, self-esteem and self-confidence.

It is suggested by Leo and Galloway (1996) that a young person's metacognition, the awareness of, and control over, their own thinking and learning processes, is directly linked to self-concepts (Carr *et al.*, 1991). Young people with low self-concept lack essential metacognitive skills and are thus disadvantaged as their motivation to learn is limited. Student response to different techniques and to the curriculum is closely associated with their metacognitive ability. Their reasons for attending and learning as a student teacher (Nolen, 1988), are issues which prompt further investigation.

Leo and Galloway (1996) describe the motivation of three distinct groups of learners, and its effect on their learning:

- Learned helplessness
- Self-worth motivation
- Mastery oriented motivation.

Learned Helplessness in Learners

The phenomenon of 'Learned Helplessness', first described by Seligman and Maier (1967) in their study of animal behaviour, was adapted and described for children by Hiroto and Seligman (1975). Diener and Dweck (1978) discuss those pupils who exhibit learned helplessness, perceiving their failure as inevitable. Marie-Louise Craske (1988) attributes learned helplessness to those students who suffer "repeated failure

disrupting academic performance, resulting in decreased persistence and achievement levels" (p.152).

Leo and Galloway (1996) expressed learned helplessness in the following terms: "learned helpless (students) are characterised by their avoidance of challenge as well as a continuing deterioration in performance" (p.38). Their failure as a result of their own inability to perform results in the negative feelings that serve to convince them they will continue to under-perform in the future (Leo and Galloway, 1996).

Learned helplessness and depression have also been linked (Weiner, 1992) and it has been suggested that females are more likely than males to exhibit learned helplessness (Dweck and Gilliard, 1975; Le Unes *et al.*, 1980; Wilson *et al.*, 1980). This suggestion is significant considering the predominance of female students attending Certificate in Education Courses at the HKIEd. and, according to Li (2000), was evident in Chinese Hong Kong students entering teacher education courses.

Self-worth Motivation for Learning in Young People

Leo and Galloway (1996) identify self-worth motivation in the person who, although approaching failure, attempts to maintain their self-esteem. For example, students might claim that the work is boring, thereby creating a more socially acceptable reason for failure. Covington (1984) describes these students as trying to establish and maintain positive self-concept while attempting to conceal their inadequacies in what be termed 'bravado' (p. 28). Chan (2001) and Li (2000) found that the student teachers participating in their studies, reported that those students exhibiting disruptive behaviour in their classrooms were indeed those suffering from a 'failure complex' who attempted to maintain 'face' within their peer group by exhibitions of 'bravado'. Some of the student teachers recognised this as behaviour they themselves had demonstrated in their own school careers.

It would seem, according to Salili (1996), that Chinese students are trained from an early age to be self-effacing and to attribute failure to a lack of effort rather than ability, which is not the case in the West. Covington's (1984) description of the 'bravado' witnessed in Western classrooms is, according to Salili (1996, p.94), not as common in Hong Kong classrooms, despite a fail-and-shame culture and Chan (2001) and Li's (2000) assertions to the contrary. Self-worth in Chinese students is demonstrated in self-effacing behaviour, which is valued as a 'good' Chinese trait, respected by one's peers and teachers, and is described by Salili (1996) as an individual's attempt at

maintaining self-esteem. However, suggests Salili (1996), whilst 'bravado' is not seen as a common behaviour in Hong Kong school students, despite contrary reports by Chan (2001) and Li (2000), the failure or 'shame' culture is strong and failure is seen very much as a result of the individual's inability to work hard. Hong Kong statistics in recent years show a disturbing increase in the number of young people who succumb to suicide (Chan, 1998). Chan's (1998) article shows the depths to which young Chinese sink in their efforts to save family 'face'. This trend has increased since Chan's report, with increasingly regular newspaper reports of single or groups of young people taking their own lives. The South China Morning Post of 17th March 2002, for example, reported 'another three teenagers take their own lives', in a pact that appeared to stem from personal failure and the shame involved for the families.

Watkins and Biggs (2001) and Li (2000) found that the issue that most Chinese student teachers worried about during and after their teaching practice periods is discipline and classroom management - how to deal with those increasing numbers of students whose behaviour is, according to student teachers, a display of 'bravado'. Watkins and Biggs suggest that this might be attributed to the changing culture in Hong Kong which is becoming more westernised with globalization and electronic and web-based communications. Pollock and Reken's (1999) third culture scenario would seem to be taking Hong Kong into what Watkins and Biggs (2001) describe above.

Mastery Oriented Learning in Young People

Mastery oriented people perceive themselves as making progress and see difficult tasks as challenging rather than threatening (Leo and Galloway, 1996). They are more likely to realize and admit that they are having difficulty and to be willing to seek reasons and solutions. In going through this process, they develop their metacognitive awareness and become more self-confident and more likely to succeed in their task (Walberg and Wang, 1987). According to studies carried out in Hong Kong and reported in Watkins and Biggs (2001), it would seem that the self-effacing trait of the Chinese learner encourages a mastery oriented person who, in the face of failure, takes on the Confucian mantle of 'if I work harder I will succeed' reported in Chapter 2. The student teachers who participated in Li's (2000) study were greatly influenced by that concept of hard work. Reporting self-blame, according to Watkins and Biggs (1996), some Chinese student teachers, when discussing their school examination results, were reported to blame their failures on a perceived lack of application, while others believed that failure was inevitable and that, no matter how hard they worked, they would not succeed.

The motivational styles outlined above indicate the role of emotion in learning. Ames and Ames (1984) suggest that emotion in students is as important as motivation and that the two are irrevocably linked. Similarly, Hargreaves (1999b) cites emotional aspects of teacher education and training as very important elements, which are only beginning to be addressed. It seems that a hardworking teacher, committed to the welfare of his/her students gains credence with students, who appreciate the closer relationship and therefore perform to the best of their ability (Siefert, 1995). The promotion of emotional ties between lecturer and student teacher at the Institute of Education in Hong Kong is perceived to have increased the motivation to succeed in the students.

Implications for Pedagogy in Schools in Hong Kong

Maureen Tam (2002), in a seminar for the Higher Education and Research Association of Australasia, argued (from her unpublished thesis) that quality, or value-addedness, is an 'elusive' concept, one that is 'contested by many' and 'conceptualised in different' ways by different people. Tam highlighted five common conceptualisations:

- Some of the Components
that make Value-Addedness
something special*

- Quality as exceptional
 - Quality as perfection
 - Quality as a fitness for purpose
 - Quality as a value for money
 - Quality as being transformative

Astin (1985, p. 87) defines quality in an educational institution sense as the "institution's ability to affect students...to make a positive difference in their lives. The most excellent institutions are...those that have the greatest impact...on the student's knowledge and personal development". Quality is, therefore, something that transforms an institution, from the mediocre to a place exhibiting excellence in everything that it does. Value-addedness targets features that are necessary in a classroom to create that element of quality.

Historically quality has been associated with industry and commerce (Arcano, 1995) and it is only more recently that it has been more widely applied in other areas such as education. Quality or value-addedness, in its new fit-for-purpose guise, is closely related to the International Standards Organisation (ISO 9000) standard for quality provision which encourages all organisations to strive for quality and to provide something extra for their clients. Governments in Europe and around the world have sought to adopt ISO 9000, with its quality status and value-addedness, to a wider application in education.

Arcano (1995) describes quality as a unifying force, encouraging people to take an overview of the way they work and create a constancy of purpose. The idea of quality, suggests Arcano (1995), promotes teamwork in which people recognise their interdependence for success. The teamwork encourages individual responsibility and engages in process improvement, thus promoting a 'win-win' situation for all.

Quality has been described by Dr. W. Edwards Deming (1982) who encapsulates it in his fourteen points (see appendices 2 and 3) for a quality organisation. All of Deming's points are directed at issues relating to the whole process and not the individual or the individual process. The main thrust of his argument is that the responsibility for quality is shared by all, possible faults lying with the process itself and not with the individual. Arcano (1995) states that the reason for the spread of TQM initiatives is quite simply that customers have not been satisfied with the products or services previously provided.

The Japanese were the first to exploit Deming's concept of quality when he introduced the wider use of statistical quality control to Japanese industry in the early 1960's. With their propensity for mathematics, the Japanese adopted the mathematical philosophy and, together with their existing sense of loyalty to their employers and their work ethic, served to inculcate in each worker the responsibility for ensuring that a first class high quality product was produced consistently. The Japanese are today largely associated with producing all kinds of quality and value-added products. Japanese industrial companies moved into the North East of England in the early 1970's and set up enterprises such as Nissan Motors. The automobiles produced at that assembly plant were of the same quality as those produced in Japan. To achieve this quality product Nissan imported the "Nissan Quality Culture' into their assembly plant (Beale, 1994). The Nissan culture was initially difficult to maintain because the British worker was unaccustomed to the issue of quality or loyalty to his employer. Nissan, despite some initial problems, soon transformed its British employees into team members whose responsibilities were to maintain the highest quality in everything that they did in that assembly plant (Wickens, 1987; Garrahan and Stewart, 1992).

It was in the latter part of the 20th Century that quality and value-addedness attracted attention in British education.

Chinese culture in the context of the classroom

Marton (1976; 1988; 1993; 1999) explains how Chinese learners have often been described as rote learners, as established in Chapter 2, where a discussion of both Westerner and Chinese research affirmed that much that goes on in Chinese schools is rote learning. Chinese students are also identified as compliant and respectful students by Marton who describes two main types of learning as:

- a. Memorisation / rote learning type
- b. Deep understanding type.

He elaborates on the concept of the 'deep learner', saying that "deep learning includes other things that are more difficult to classify", but which might fall into the following categories, all of which may be seen as value-addedness:

1. Those areas that are not covered by the normal syllabus / examination driven curriculum, referred to as the 'Hidden Curriculum'.
2. The weight of feeling /passion for one's specialist subject area.
3. The unwritten assumptions of how a professional should act; how, for instance, a medical doctor should act, interact with patients and colleagues, or make specialist diagnosis of injury or disease.
4. The 'something special' that makes a professional.
5. The expectations from colleagues and the wider public of our professionalism as educators.

The Open University of Hong Kong (1999) makes use of the term 'quality' in describing a type of learning that encapsulates Marton's 'deep learner'.

Marton's description of deep learning reflects the intention behind, and design of, 'Quality Learning Teams' at the heart of this study, each member of the team assuming individual and group responsibility to ensure maximum understanding of their learning materials. It is essential that each member of the team should have feelings of:

- | | |
|------------------|---------------------------------|
| • Goodness | • Determination |
| • Membership | • Loyalty to other team members |
| • Responsibility | • High self-esteem |
| | • Sense of achievement |

These are the 'feel-good' and value-added factors which are very high on Abraham Maslow's (1956) "hierarchy of Basic Needs" model (see appendix 10).

Problem-Based Learning (PBL) and the use of Learning Teams - A Way Forward in Higher Education in Hong Kong

David Johnson (1989), of the Problem-based Learning Association of Hong Kong, suggests that a problem-based approach to learning inside the classroom would increase motivation and create a student-centred learning environment with students working co-operatively.

Delisle (1997) attributes problem-based learning to John Dewey (1916, 1944), who believed that teachers should teach by appealing to students' natural instincts to investigate and create. Dewey wrote, "The first approach to any subject in school, if thought is to be aroused and not words acquired should be as unscholastic as possible" (Dewey 1916, 1944). Since Dewey's time his approach has been termed a 'constructivist approach' whereby students construct knowledge in a metacognitive and student-centered way which in turn encourages students to work closely in groups, creates motivation and results in enjoyment as learning occurs.

For Dewey, students' experiences outside school should provide us with clues as to how to adapt lessons to what interests and engages them:

"Methods which are permanently successful in formal education ... go back to the type of situation which causes reflection out of school in ordinary life. They give pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results" (Dewey 1916, 1944).

Delisle (1997) argues that students still learn best by experiencing and thinking through problems. Educators who use problem-based learning (PBL) recognise that in the world outside school, adults build their knowledge and skills by solving real problems or answering important questions, rather than through abstract exercise (Delisle, 1997).

Recent decades have seen problem-based learning and constructivist approaches to learning undertaken by tertiary education, especially in medical education (Spaulding, 1969) and by vocational education institutions.

Barrows and Tamblyn (1980) suggest that the conditions for effective adult learning are that:

- the learners pose their own questions
- the learner is immersed in integrated learning
- the learner is subjected to cumulative learning, drawing on increasing complexity and challenge
- the learner undertakes learning for deep understanding (Marton, 1998)

Teacher Education, in similar ways to medical practitioner education, has to rely heavily on constructivist learning principles (Watkins and Biggs, 2001). Learning takes place as a result of processing and solving a series of relevant subject-based questions which have a practical application. A Problem-Based Learning strategy, provided by the researcher in Figure 5, represents a strategy that might be used by a group of student teachers through co-operative learning and teaming efforts.

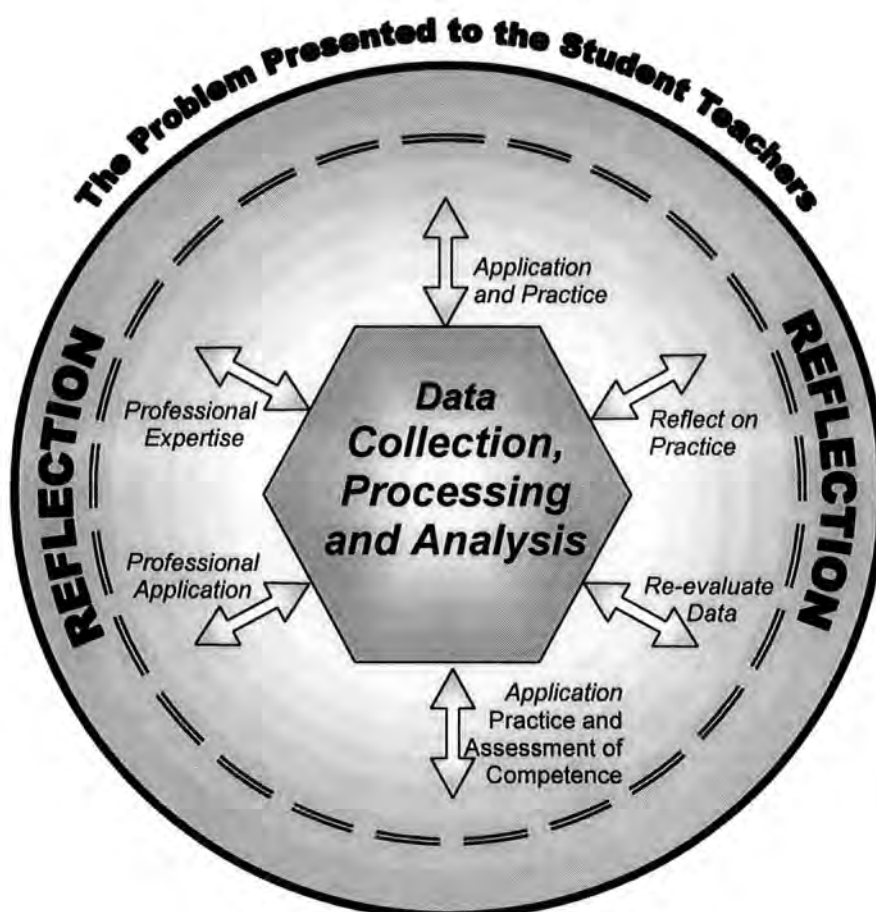


Figure 5. Model representing a Problem-Based Learning strategy

Barrows and Tamblyn (1980) summarise the process of problem-based learning as follows:

1. The problem is encountered first in the learning sequence, before any preparation or study has occurred. (Practical pedagogic application problem)
2. The problem situation is presented to the student teacher in the same way it would be presented in reality. (Examining appropriate applications)
3. The student teacher works with the problem in a manner that permits his/her ability to reason and apply knowledge to be challenged and evaluated, appropriate to his/her level of learning.
4. Needed areas of learning are identified in the process of work with the problem and used as a guide to individualised study.
5. The skills and knowledge acquired by this study are applied back to the problem, to evaluate the effectiveness of learning and to reinforce learning.
6. The learning that has occurred in immersion with the problem and in individualised study is summarised and integrated into the student teacher's existing knowledge and skills.

The conceptual framework of problem-based learning, provided by the researcher, as shown in Figure 6, depicts a cycle starting with the stated problem where the problem

is first analysed, then researched, conceptualised, practiced, recycled and practiced again until a level of professional or expertise skill is achieved.

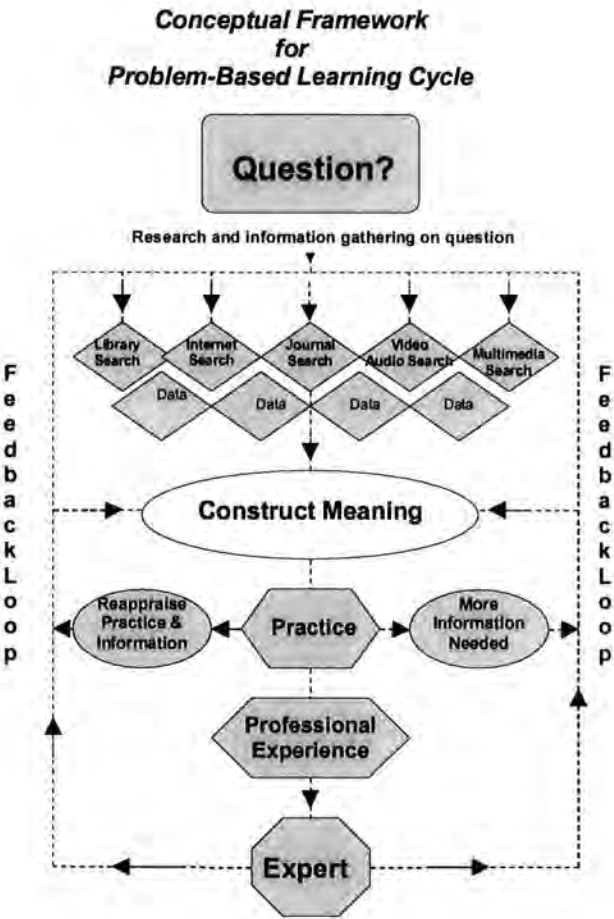


Figure 6. *Conceptual Framework for PBL Cycle*

Figure 6. A data collecting mechanism for learning through problem-based strategies.

Problem-based learning, following constructivist principles, takes its strength from its student-centred approach to teaching and learning. Barrows and Tamblyn (1980) support this as "learning which results from the process of working towards the understanding of, or resolution of, a problem". Engel et al (1997) take problem-based learning to identify the overall curriculum structure as being crucial for problem-based learning. Engel et al (1997) also consider important the notion that academic staff need to be informed, to be involved in the discussion on new curricula initiatives, and to receive appropriate training in the methods to be adopted - an important element in the establishment of a pedagogy that might be adopted in the wider spectrum of the Hong Kong Institute of Education.

Learning Teams and Teaming to Enhance Conceptual Understanding

Creating 'Quality Learning Teams' of student teachers which would serve in an almost autonomous way to encourage the learning and understanding of the educational theories being taught is a challenge to teacher educators in Hong Kong. The use of teams as opposed to cooperative learning groups is important as the concept goes far beyond a group of student teachers merely working together. Teams working together have always had a value-added element and, in recent decades, educational establishments around the world have made attempts to create management teams and teacher teams. It is necessary to go beyond management initiatives and into the classroom (Watkins and Biggs, 2001) to incorporate quality and value-addedness into the quality learning team and its work.

Research on changes in educational management and innovation, such as 'teaming', indicate that those changes can more rapidly be carried out in a Quality environment (Bryant, 1995), that is an environment synonymous with schools attracting the label 'centre of excellence'. Wickens (1987) claimed that teamwork is not dependent on groups, but on the whole population working toward globally recognised goals. Deming's 14 points (cited in Mann, 1989; and Arcano, 1995) (see appendices 5, 6 and 7), allude to the whole-school culture, the school working towards its aims and objectives as one team. This is a possibility even with the diversity of human emotions (Arcano, 1995). Taking Deming's concept of quality into the classroom encourages student teachers to see the benefits of working very closely and dependently together.

Researchers on change and innovation (Hord *et al*, 1987 and Fullan, 1999) indicate at least four dimensions in which to study an educational innovation:

- the teacher's perspective
- the way the innovation is implemented in the classroom
- the leadership role of effective change facilitators,
 - the various forms the innovation can take

Quality team models, usually utilized in a commercial context, have been adapted for use in an educational setting:

- the Concerns Based Adoption Model (C-BAM), based on many years of intensive, school-based research (Hord, 1987), (see appendix 2)
- a TQM Quality model (Deming, 1982), (see appendices 3 and 4)
- a 'TeamUp Model' (Team Technologies Inc; 1992), (see appendix 7)
- the 'FastTeam Process' (Hardwick, 1994). (see appendix 8)

The Concerns-based Adoption Model is described by Hord, *et al* (1987) as the process whereby a teacher adopts and implements new or subject / curricular matters. The model was developed from a number of studies and practical use in classrooms which

Hord and his colleagues conducted in the United States of America during the 1970's and 1980's. But, Hord *et al* continue, it was found that only when the teacher accepts that the change is necessary will s/he adopt the changes into a classroom setting. Change, they contend, only becomes reality if and when it is accepted in the first instance by the teacher who then through concern for his/her own standing in the school and his/her class performance, passes on the conceptual ideas to his/her students. Only when it impacts on the individual teacher will it become a part of what a teacher does in the classroom. This is also influenced by outside factors such as the principal, panel heads, parents and fellow teachers.

Deming's Total Quality Management (TQM) Model consists of fourteen points that can be adapted for an educational or classroom setting, which will ensure that the process of learning is monitored not through the traditional methods of output objectives, but through carefully examining the process through which students go in attaining conceptual understanding. The process itself and the responsibility for understanding lies in the hands of individual students working together which Deming would contend is a way to ensure that quality and value-added learning and understanding are maintained.

The 'TeamUp Model' is a model created in the USA in which commercial enterprise is encouraged and assisted through a process of encouragement of all 'stakeholders' to become involved in the process of change. This strategy was adopted by aid agencies such as the British Government Department for International Development (DfID) who in 1994 undertook to improve the implementation, and hopefully guarantee the success, of overseas aid projects by involving all concerned parties or stakeholders in implementation as a quality team. The value-added component in this case was the empowerment of individuals involved in and with the various aid projects.

The 'FastTeam Process' developed by Susan Hardwick (1994) in the USA worked in a similar fashion to the 'TeamUp Model' described previously. A very process-related model, it required the working team to focus on and move towards a common goal. It was very similar to the TeamUp model described above and worked in much the same way but with different logistical steps.

These diverse aspects of teaming and team make-up illustrate how the use of an innovation such as teaming would impact teacher-student learning, educational management, and also the cultural dynamics within the Hong Kong Institute of Education (see appendices 6 and 9).

Lawrence Holpp (1992) discusses TQM and Self-Directed Teams (SDT's) from his own experience of running a TQM consultancy company. He found that, as a rule, Self-Directed Teams tend to provide an immediate benefit, whereas a well-planned, TQM initiative has a more significant effect on performance levels in the long term. Although Holpp is describing a commercially based strategy, the same outcomes might also be expected in an educational setting. Educationalists might be alerted to these differences and also to Wickens' (1987) strategy for a whole-institute culture approach to change. Dahlin (1993) suggests that an SDT strategy used in the classroom substantially enhances student learning. He goes on to suggest that as the school culture grows in strength, teachers and students find working with their peers exhilarating and beneficial and the school operates with success in terms of both examination results and the collegiality between teachers and administrators.

The model, provided by the researcher and illustrated in Figure 7. shows that four elements are considered essential in building a quality and value-added learning team.



Figure. 7. A Model for "Quality Learning Teams"

The elements are interrelated and each impacts on the other. The elements are as follows:

- Motivation
- Quality
- Team
- Cultural Context

The combination of these elements results in a learning team that provides its own quality assurance, its own in-house motivation and its own team culture. Each of these elements would contribute to a value-added classroom.

Social Interdependence

In line with this value-addedness concept, this study will show that quality learning teams break down inhibitions in Chinese student teachers and create an interdependence that requires trust, allowing the team to see the perceived faults and shortcomings of its members. The social aspect of QLT is considered very important, according to Johnson and Johnson (1989), the outcomes of social interdependence reflecting a number of cross-social paradigms, as shown in Figure. 8:

The diagram shows that cooperation and collaboration (*positive interdependence*) results in *promotive interaction*, as individuals encourage and facilitate each other's efforts to learn (Johnson, et al, 1998). Social Interdependence Theory, posit Johnson et al (p.14), is the most fully developed, the most clearly related to practice and the greatest inspiration to research in the field. Social Interdependence Theory specifies:

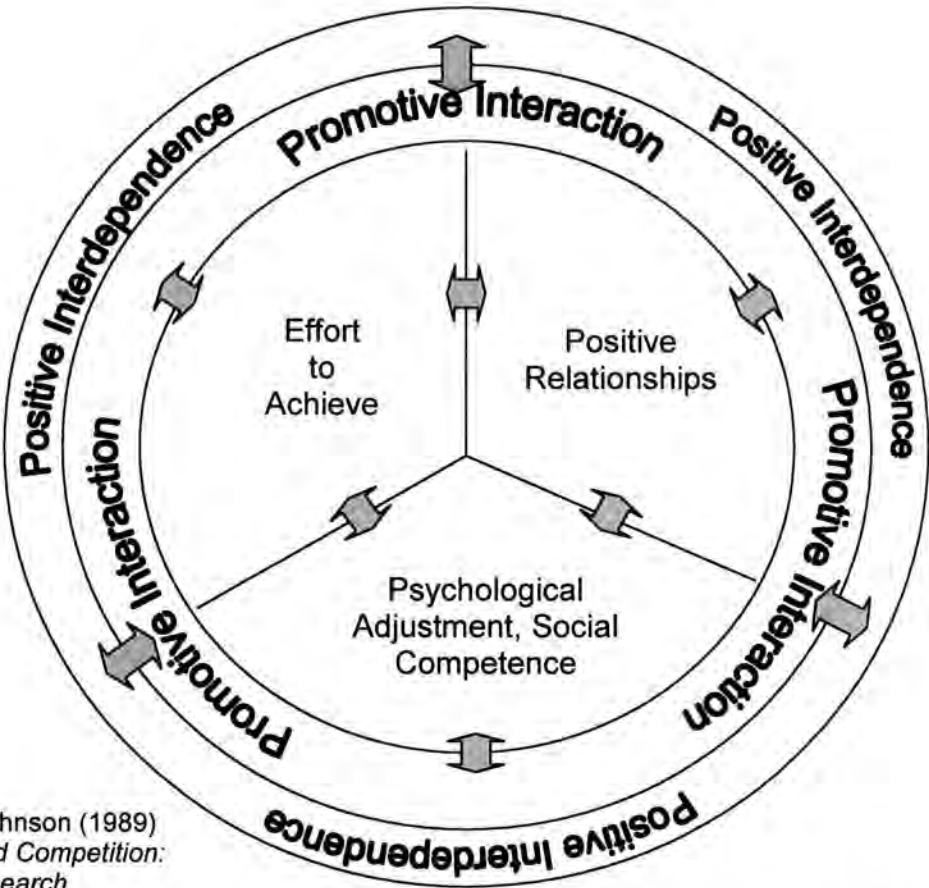
- the conditions under which co-operation is most effective;
- the outcomes most effected by co-operation;
- the procedures teachers should use in implementing co-operative learning. (Deutsch, 1994b, 1962; Johnson, 1970; Johnson and Johnson, 1975, 1989; Johnson, Johnson and Holubec, 1998)

Authentic Assessment Strategies to Enhance Student Learning

The Curriculum Development Council 'Learning to Learn' documentation (2001) highlights, as a major reform area, the examination and assessment strategies utilized in Hong Kong schools. The finding of the SAR Education Department investigation, undertaken throughout the 1990's, is that assessment needs to be fairer to a greater number of children and that alternative and acceptable assessment methods, other than pen and paper examinations, can and should be utilised.

More formative and less summative assessment methods are advocated and are identified by the SAR Government Education Reform documents (2001) which suggest that methods to be considered should include the following:

- Project work
- Group work
- Assignment work
- Portfolio work
- Quizzes and examinations
- Continuous assessment within the classroom



Adapted from
Johnson and Johnson (1989)
*Cooperation and Competition:
Theory and Research*

Figure. 8. A Model Showing Positive Interdependence whilst working in a Learning Team

Pedagogy should include strategies such as co-operative learning, student-centred activity, teacher as facilitator and mentor, enhanced communication between student and teacher, more open acceptance and encouragement of questioning from students and less emphasis on 'cramming' for examinations (Curriculum Development Council, 2001).

Elton and Laurillard (1979) (in Dahlin, Watkins and Ekholm, 2001) drew our attention to an important issue in the Curriculum Development Council Education Curriculum Reform proposals (2001) when, two decades ago, they indicated that 'the quickest way to change student learning is to change the assessment system' (p.100). Biggs (1996) talks of the 'backwash effect' on students, teachers and schools when change takes place and how this effect might influence the way change might be managed. Dahlin, Watkins and Ekholm (2001. p.47) discuss 'backwash effects' in terms of a 'phenomenon' challenging student perceptions of current assessment methods with assessment methods that encourage students to develop study approaches which encompass deep learning strategies and which rely less on memorization and

reproduction. It seems to be a view amongst researchers that the 'backwash effect' has as strong an impact on the teachers and their teaching methods as on student perceptions and reactions to their teaching (Dahlin, Watkins, and Ekholm, 2001, Biggs, 1996 and 2001, Marton, 1998). Dahlin, Watkins and Ekholm (2001, p.47) explain that 'studies carried out in Hong Kong indicate that there are systemic relations between teachers' and students' conceptions of the fundamental elements constituting academic studies. These elements include learning, teaching, subject matter and assessment methods'.

In their study of Hong Kong and Swedish tertiary student study habits, Dahlin, Watkins and Ekholm (2001), assert that student perceptions of assessment and surface or deep learning strategies show that assessment is fundamentally important in motivational aspects of study strategies (p.63). Hong Kong teachers' perceptions of ideal assessment strategies varied, but appeared to be seen by those teachers included in the study 'as more appropriate reflections of what students really had to work with in their future professional life' (Dahlin, Watkins and Ekholm (2001). Some teachers had thought of using alternative forms of assessment to examination-oriented assessment, but had either not tried or had in fact given up in the face of Hong Kong students' cultural attachments to examinations (p.63). Many first year tertiary students in Hong Kong, say Dahlin, Watkins and Ekholm (2001), are almost incapable of taking on board alternate forms of assessment which 'presuppose independence, self-confidence, and initiative, for instance project work involving working in groups' (p.64). The first year tertiary students in their study were seen as very dependent on their teachers, unused as they were to working independently, the products of primary and secondary schools in Hong Kong which created a distinct 'lack of initiative' in their students (p.65). The study found that upper secondary schools in Hong Kong 'do not encourage students to develop independence and initiative', and the forms of assessment used stimulated 'surface strategies of memorizing and reproducing' (p.65). One of the teachers participating in the study commented on her students in the first year of tertiary study as:

"not being sure that the way we assess affects the way students learn. I think the way students learn has been almost brain-washed by the time they get here, because no matter what we try to do to change it they seem to go back, they seem to want to go back into that same groove".
(Dahlin, Watkins and Ekholm, 2001, p.66)

Whilst many of the teachers in the study found that Hong Kong students had the habit of memorising and reproducing from their previous school experiences, it was also seen as a characteristic of the Chinese culture (Dahlin and Watkins, 2000). Teacher dependency was also seen as a consequence of the Chinese culture (p.66).

Dahlin, Watkins and Ekholm (2001, p.67) state that the national educational policies, as well as the structure and dynamics of society, constitute the ultimate framework for what can and does take place within educational institutions. Aspects of this framework acted as constraints to the forms of assessment utilised (p.67).

Dahlin, Watkins and Ekholm (2001, p.71), argue that, when comparisons are made in Hong Kong between primary, secondary and tertiary education practices, three distinct systemic factors emerge which continually thwart attempts at reform in the lower level school System: (a) that it is a mass education, (b) that it is obligatory, and (c) that students are graded. They contend that these factors are seldom seriously considered when school or curriculum reforms are planned (p.71).

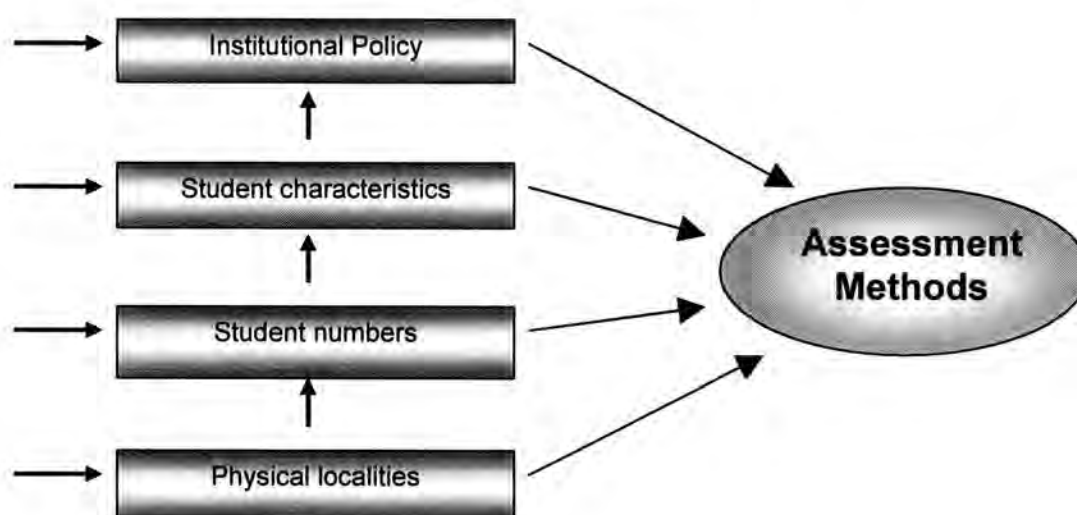


Figure 9. Macro-social and political framework (from Dahlin, Watkins and Ekholm, 2001)

In trying to implement authentic assessment each of these systemic constraints must be considered. Dahlin, Watkins and Ekholm (2001, p.72) illustrate this in figure 9.

Questions arising from Review of Literature

A number of issues emerge, not identified in Chapter 2, which provide a rationale for further research.

- Co-operative learning, for which Chinese learners are said to have a predisposition, is dismissed by new teachers as a demotivating strategy that is difficult to organize and evaluate (Tang, 1996; Chan, 2001).
- New teachers appear to be dismissing co-operative learning as a valid pedagogy whilst the Education Reforms advocate such pedagogy (Chan, 2001).

- It is said that student teachers take much of their style of teaching from their trainers. If this is the case how can new teachers be induced into making use of cooperative learning pedagogy (Tang, 2001; Gow and Kember, 1993; Ho, 1998; Trigwell, Prosser and Waterhouse, 1999; Mellado, 1998; Scott and Roger, 1995)?
- The 'mastery oriented trait' of Chinese learners created an ethos of working hard to succeed, but what happens to those students who fail? How can we motivate them to become successful teachers? (Watkins and Biggs, 2001; Leo and Galloway, 1996; Walberg and Wang, 1987)
- Chinese learners and teachers are inculcated with the cultural expectations of formal summative examinations whilst the Educational Reforms call for formative and authentic assessment techniques (Dahlin, Watkins and Ekholm, 2001).
- Traditional classrooms are deeply embedded in the Hong Kong education culture whilst the Education Reforms call for innovation and constructivist approaches to pedagogy (Ames and Ames, 1984; Hargreaves, 1999; Siefert, 1995).
- Hong Kong teachers who tend to advocate 'traditional' teaching believe a teacher should not get too close to his/her students. The Education Reforms call for more closeness and emotional attachment in order to encourage more motivated children who, it is thought, will be better able and more emotionally adjusted to live in today's world (Ames and Ames, 1984; Hargreaves, 1999; Siefert, 1995).

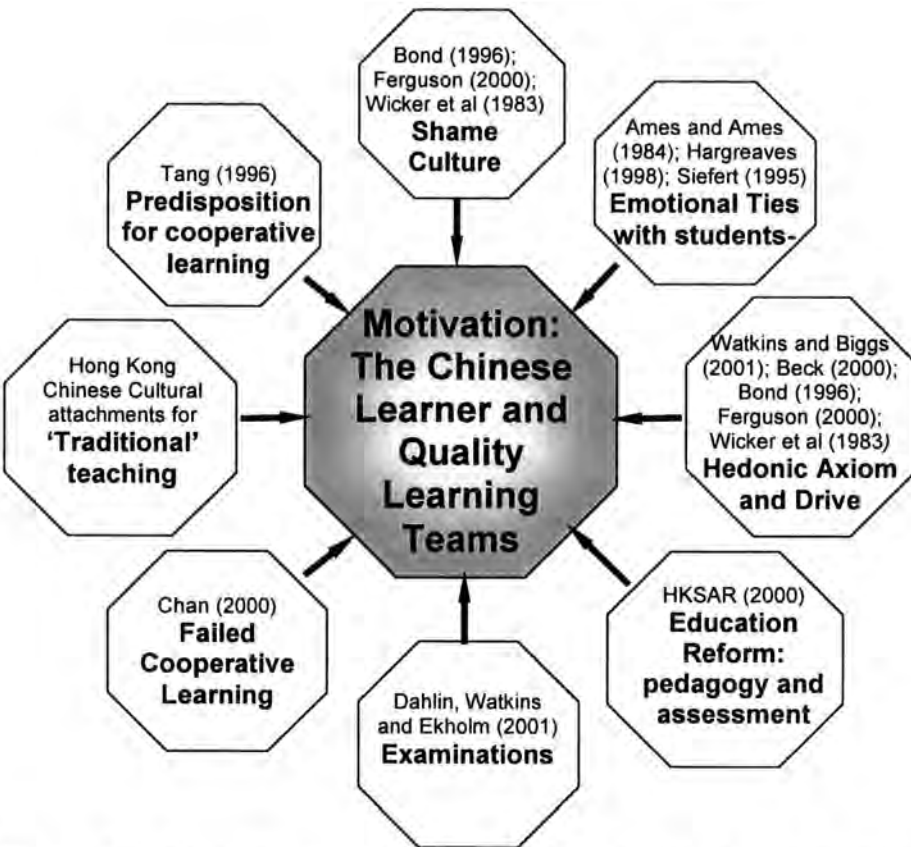


Figure: 10. Model illustrating those questions that emerge from the literature review 1

Chapter 4

Design, Methodology and Procedures

Introduction

Hitchcock and Hughes (1995, p.5) describe research as a 'systematic enquiry', subject to 'criteria for validity, reliability and representativeness'. The research approach for this study is not, according to Hitchcock and Hughes, 'pure' research, as it concentrates on practical aspects in the tertiary classroom, whereas 'pure' research, they suggest, is more concerned with advancing knowledge, not necessarily of a practical nature. Applied research is, say Hitchcock and Hughes, concerned with results that are similar to pure research, but whose 'application need not be immediate' (p.6). Hitchcock and Hughes describe an action research approach as an enquiry instigated and conducted by those directly concerned, the results of which are usually for immediate application. The present study is primarily concerned with what goes on inside a working classroom and is therefore based on an action research approach. This chapter describes the design of the study and the methods used in the collection and analysis of data. The focus of the study is explained in relation to the rationale for the use of pedagogy to enhance learning; the schedule of data collection and the methods used are introduced, and, finally, the chapter describes the procedure for data analysis.

The issues which arise from the literature focus on two areas: the influence of Chinese tradition on education and the Chinese learner's approach to learning.

1. The influences of Chinese tradition

The literature illustrates the importance of the role played by Confucian principles in shaping the attitudes and perceptions of Chinese people towards education and of how education is regarded as a means of attaining status and providing family welfare.

People in Confucian heritage cultures tend to believe that:

- Loyalty to those in authority in the family, workplace and government, is very important for unity.
- Hard work leads to success
- Failure is the result of one's lack of commitment to the task
- Harsh discipline is necessary for children to appreciate their place in the family and in the wider world.
- Daughters take second place to sons within the family.
- Self-effacement is laudable
- Repeated reading of a text will lead to complete understanding
- A morally upright person takes care of family first, before the wider family circle, people in the local community and in the wider world.
(Watkins and Biggs, 2001; Peterson, Peterson, Hayhoe and Lu, 2001)

2. The Chinese learner

For two millennia, Chinese education has been influenced, not only by Confucian ideals, but also by the Imperial courts, from the Qing Dynasty to that of the last Emperor who was overthrown in 1905, which recruited several grades of civil servant through a number of examinations. Success in the latter afforded great status, much as examination success in present-day Hong Kong is recognised as a passport to a secure future, even with the region's economic downturn in the late 1990's.

Education in Hong Kong adheres to Chinese traditional thinking, resulting in high student and societal expectations of both teachers and schools. The development of education in Hong Kong has followed a pattern based on the following perceptions:

- Examination success at kindergarten, primary, lower and upper secondary levels, is essential for progress through the school system.
- Failure at any level is perceived as due to a lack of focus and hard work on the part of the student.
- Students learn the meaning of success and failure from an early age.
- Success in the school system guarantees placement at one of the universities in Hong.
- Failure to achieve university placement leads to re-sits, repeated years in school or acceptance of places in less prestigious tertiary institutions.
- Teaching is a mainly female profession.
- The focus in schools is on individual achievement, with group work regarded as time-consuming and unfair for the individual as far as the assessment of individual pupils is concerned.

The literature also highlights certain perceptions about the Chinese learner.

- The Chinese Learner, as part of a collectivist society, is thought to be pre-disposed to co-operative learning.
- Tertiary students in Hong Kong work collaboratively out of class in preparing assignments, projects etc.
- The Chinese Learner is likely to be more focused on work than the equivalent Western student.

- The Chinese Learner is subjected to traditional teaching in which rote-learning is considered elemental for examination success.

The Hong Kong Education Reforms for Schools

The literature also refers to the recently introduced Hong Kong Government, Education Reforms for Schools (Curriculum Council, 2001) which target some of these perceived shortcomings by promoting the following:

- The re-organisation of an overcrowded curriculum,
- Student-centred learning strategies as opposed to traditional teacher-centred pedagogy.
- Collaborative and co-operative learning strategies in the classroom.
- Project-based work and assignments.
- More authentic and formative methods of assessment to replace, or supplement, some of the summative examinations predominant in Hong Kong Schools.

These reforms, together with the issues mentioned above, provided the impetus for this study.

Questions Arising from the Literature Review

The major question to emerge from the literature gives rise to a number of more specific questions, all of which are concerned with motivating the Chinese learner who, steeped in tradition and Confucian precepts, appears to resist innovation.

The General Research Question

- *Can the use of Quality Learning Teams motivate student teachers attending initial teacher education courses in Hong Kong?*

The more specific questions are:

- (i.) Is it possible to motivate those who regard a career in teaching as second best?
- (ii.) In what way can those student teachers who think in only 'traditional' pedagogy terms be persuaded that pedagogy does not have to follow traditional forms?
- (iii.) What can be done to motivate those who consider themselves failures?
- (iv.) What is the best way to promote innovative pedagogy?
- (v.) By what means can those with a traditional outlook, be persuaded that working co-operatively and collaboratively results in effective learning?
- (vi.) In what ways can female student teachers, in a male-dominated society, be persuaded to develop high expectations and high self-esteem?
- (vii.) Is it possible to promote student-centred learning in a traditionally teacher-centred context?
- (viii.) What can be done to counteract traditional cultural and societal mindsets opposed to educational change?

The Objectives of the Study and the Research Design

There were two main objectives in addressing the research question.

They were:

- (1) to design an alternative pedagogy involving collaborative and co-operative learning using quality learning teams
- (2) to implement and evaluate the alternative pedagogy.

This alternative pedagogy demanded a change from traditional, teacher-centred teaching and learning to a student-centred system, both within the student's learning and teaching situations. Quality learning teams was considered a suitable vehicle for this quite radical approach, an approach nevertheless also recommended in the Education Reforms.

Research Design

The enquiry is empirical, investigating the formation and operation of learning teams, within an authentic classroom setting and it evaluates the effectiveness of learning and understanding through an innovative pedagogy that espouses relationships and cultural sensitivity. To investigate perceptions, feelings, values and concepts of pedagogy and Quality Learning Teams (QLT), it seemed appropriate to approach the research questions along a number of avenues. After consideration, an action research direction was taken which included the collection of data in a *quantitative way*, with pre- and post- intervention questionnaires, a *qualitative way*, with randomly selected interviews with student teachers and all staff who took part in the project, and in an *interpretative way*, through classroom observation and video presentations.

The model of research adopted for the project, according to David Uzzell (2000), leaves us with something of a dilemma as the project set out to combine *nomothetic* methodology, using questionnaires with relatively large numbers of students, and *idiographic* methodologies, using in-depth interviews to capture the richness and complexity of student thinking on Quality Learning Teams. Using a series of questionnaires for (1) pre-intervention, (2) post-intervention and (3) end-of-course, the research used a *nomothetic* approach. The *idiographic* approach combined in-depth, semi-structured interviews of randomly selected student teachers involved in the classes, and all of the lecturing staff involved, providing data in such a way that all perspectives could be included. Uzzell (2000, p.327) talks of questionnaires channelling responses along a predetermined route with the opportunity for the individual to say 'yes, but . . . ' The questionnaires used on this project provided individual students with ample opportunity to express their feelings about what they

were doing. The objective was, in the words of Uzzell (2000, p.327), to get a view from the 'insider looking around' and not from the 'outsider looking in'. This view is shared by David Watkins and John Biggs (2001) who also advocate that research into classroom teaching should be carried out *inside* the classroom and, with this in mind, the project set out to investigate pedagogy that would stimulate and motivate pre-service student teachers inside their lecture rooms and beyond.

An ethnographic approach addresses interest in the 'questions people are answering themselves about their lives, their relationships and their environment by their actions' (Uzzell, 2000, p.327). An ethnographic approach also 'attempts to present the totality of the phenomenon under investigation' (p.329), which is what this project aims to do. Uzzell (2000, p.329) highlights the implications of the hidden factors of culture which are rarely made explicit. The literature review described some of the cultural implications and barriers created by 'tradition' and by the tenets of Confucianism. Werner and Schoepfle (1987) explain this 'cultural' aspect in what they call 'semantic accent', which is seen as the confusion of respondents' meanings with the researcher's meanings. The 'semantic accent' led the author to analyse participants' responses in the study against their cultural background more circumspectly.

The focus of this study is on how to motivate the Chinese student teacher to work collaboratively for increased understanding and improved self-confidence. An initial survey gathered information about the student teachers' pre-service conceptions of career, teaching, learning and self-worth and provided the context in which their potential change in beliefs and conceptual understanding during their education course could be interpreted. The study's intention is to broaden understanding about Chinese student teachers' concepts of classroom learning and their classroom practice. One of the main objectives of the study was to set up a system for comparing and analysing the effects on pedagogical knowledge and practice and the change in the Chinese student teachers' self-perceptions during their teacher education course at the Hong Kong Institute of Education. The investigation highlights the patterns and variations of change in Chinese student teachers' thinking, pedagogy and theoretical propositions which emerged, and paves the way for subsequent research studies. The introduction in Chapter 1 discussed this particular area of inquiry and the fact that it has received little research attention in Hong Kong.

Context of the Study

The Hong Kong Institute of Education two year, full-time Certificate in Secondary Education Course is an initial professional qualification allowing its holders to teach the

lower year groups in secondary schools in Hong Kong. During the two years of study, the student teachers have to satisfy the requirements of the course's Professional Studies' modules during their first and second semesters. Half-way through the second semester of their first year, they have to complete a four-week Field Experience for their first supported teaching practice. Teaching practice encourages the students to work in co-operation with other student teachers as a team, observing one another and discussing teaching strategies. The cooperation and discussion also provides opportunities for reflection.

During their second year, the Field Experience is increased to six weeks and they are expected to become more involved in their schools' activities and administration as well as to take on a greater teaching load. They are encouraged to continue to act as a team with their peers and to assist one another through the 'ups and downs' of teaching practice. Peer observation in the classroom is encouraged during this period as is the constructive criticism of each other's performance. At the end of the Field Experience, the student teachers return to the Institute of Education to complete and cement their experience through module and programme assignments and evaluations.

The course modules, *"Classroom Teaching Skills"* and *"Instructional Design and Strategies for Effective Teaching"* (see appendices 23 and 24) are an integral part of the course. For the present study, new teaching methods were planned which aimed to promote the development of self-confidence and esteem and require students to study teaching methodology and educational psychology and to reflect on their roles as future teachers. The materials used were American, British and Chinese.

The pre-service student teachers involved in the study were admitted, in two cohorts, to the two-year full-time Certificate in Education in Secondary Education Course at the Hong Kong Institute of Education from 1997 to 1999 (Cohort 1) and 1998 to 2000 (Cohort 2), for both Chinese and English-based courses. There were approximately 500 student teachers in the two cohorts, 216 on the English-based course and 269 on the Chinese-based course. Of those on the 1997-1999 English-based course, 96 were English-elective students, the remainder choosing different electives, a number of which were taught in English. Of the Chinese Course, 172 were Chinese language elective students, the remainder choosing different electives, taught in both Chinese and English.

The ages of the student teachers ranged from 18 to 35 years, the majority being in the 19 to 22 year age group. Their educational backgrounds were varied and included

different attainment bands, of secondary schools, grant-aided and vocational schools, commercial and international schools and some schools from outside Hong Kong. The Hong Kong Institute of Education statistical data showed that, of the student teachers in the study, 82% were female and 18% male. On entering the teacher education course most of the student teachers had completed their 'A' level examinations. The 'A' level examinations results varied considerably, with a large number of students attaining grade 'D' and lower and only a small number obtaining grades in the range 'A' to 'C'. Some students had gained a variety of work experience of varying types and some had parents or relatives in the teaching profession (see appendix 11 – student details form).

The student participants provided a representative sample of the general level of the annual intake for the Certificate in Education Courses. Although the Certificate in Education Courses will be phased out in 2005, to be replaced with degree-only courses, this study was designed to provide information on pedagogy that could be incorporated into teacher education in Hong Kong.

The majority of students entering these pre-service education courses had to contend variously with their own perceived inability and sense of failure, their A-level results falling short of the requirements of their first choices of university courses, their feelings about the innovative teaching strategies used by their lecturers and their *having* to use a language (English) that many found challenging.

The research was, therefore, prompted by the lack of motivation evident in the student teachers as they struggled with comprehension of the English texts and learning materials, which, despite modification, were often regarded as too difficult, and also with the feelings of inadequacy which these difficulties engendered. In addition, the afore-mentioned Education Reforms, although not published at the time, were being circulated for professional debate and provided a catalyst for the study.

Design of Alternative Pedagogy

The researcher directed a team of eight lecturing staff, from the USA, UK, Australia, Canada, Taiwan and Hong Kong. Six lecturing staff agreed to join the team using the QLT pedagogy which was different from the traditional approach used by many at the Institute of Education at the time. Two of the teaching team, however, did not feel happy with adopting the QLT strategy, deciding to continue with traditional pedagogy. Their decision provided an opportunity for the intervention pedagogy to be compared with traditional pedagogy; the two teaching staff agreeing to take part in the study. The

ethical considerations in adopting two distinct groups for comparison, were not considered a problem as, at that point, there was no way of knowing if the QLT pedagogy would be beneficial. Additionally, although the teaching team was self-selecting, they were all equally experienced and hence, the two teaching staff deciding *not* to adopt QLTs in their classroom provided an additional way of evaluating the innovation. The number of teaching staff corresponded with the number of classes taking the Certificate in Education Course in 1997.

The teaching team had collaborated on the same module during the previous year and the researcher, appointed as the module co-ordinator for the 1997 intake, was ideally placed to take on the role of Principal Investigator.

In the face of the difficulties encountered by the students mentioned previously – the use of ‘imported’ strategies by overseas staff, the problems of working in a second language, the lack of self-confidence and the impending Education reforms – the researcher drew upon his previous experience of working with the quality learning team strategy, both in industry and education, to motivate his students. The positive response from the students enjoyed by the researcher in his own classroom was observed by the teaching team, most of whom then adopted the quality learning team strategy in their own teaching situations.

The Quality Learning Team Strategy

Working in a collaborative and co-operative way in classroom groups has been a successful student-centred approach to teaching in Western countries for decades. However, the literature does not indicate that a student-centred approach is common in East Asian countries and this is supported by Chan’s (2001) research which suggests that, in Hong Kong, this type of learning is not popular with teachers or parents. Chan cites large classes and pressure from parents and principals to adhere to an outdated curriculum and traditional classroom practices, as reasons for the lack of willingness and enthusiasm to use this type of pedagogy.

What was distinctive about the introduction of an alternate pedagogical approach using quality learning teams was the responsibility placed on the team members who had to assist each other in understanding the materials being studied by preparing and delivering a class presentation. The responsibility for their own learning was thus placed on the student teachers and referred to in such a way as to introduce the concept of quality learning. Quality is described in Chapter 3 as a concept that is elusive and difficult to inculcate in individuals, especially in learning situations such as

Hong Kong schools, where the teaching and learning objectives are exam-oriented, rather than student-centred. In this study, quality is determined by the process: the way in which learning team members took it upon themselves to assist in whole team understanding, and in taking responsibility for presenting a coherent explanation of the material that they were studying to the whole class.

The term 'Quality' was added to the concept of Learning Teams in order to enhance the concept of working collaboratively and co-operatively and to demonstrate to student teachers that their own students in the future would also experience quality learning and teaching if their teachers used innovative pedagogy themselves.

Quality Learning Teams in Context

1. The teams, consisting of four to five student teachers, chose their own members, based on their limited knowledge of each other from the first two weeks at the Institute; they were of mixed major and minor electives. After working together for one week the team chose a team leader to co-ordinate work and facilitate discussion and organisation.
2. Each team was given a text to study, prepare and ultimately present to the whole class.
3. Each team divided the material, which was in English, equally among its members.
4. Each team member, using this jigsaw strategy, explained his/her piece to the team. This was done essentially in Cantonese, but with some English.
5. This engendered a discussion among team members to translate the English text to Chinese so that better understanding resulted.
6. Once the entire team understood the content in Cantonese they proceeded to the preparation of the materials, in English, to the class.
7. Finally the materials were presented in English to the whole class, each team responding to questions from their classmates. Each team also prepared written notes in English for the whole class. At any point in the presentation, the team presenting had the opportunity to use Cantonese to explain the materials more fully if necessary.

The enjoyment and satisfaction that this process brought to individuals helped the team members to appreciate the importance of the use of Quality Learning Team (QLT) as they met with success in the reading, preparing and understanding of their materials. The quality aspect was also enhanced by the use of both Cantonese and English to promote understanding and this, in turn, led to an increase in the self-confidence of team members: the team was united in overcoming their commonly perceived inadequacies in the use of English. Quality was also evident in the increased mutual respect they demonstrated by listening to each other's opinions, something which might not have occurred had the classes been conducted in a traditional, lecturing style.

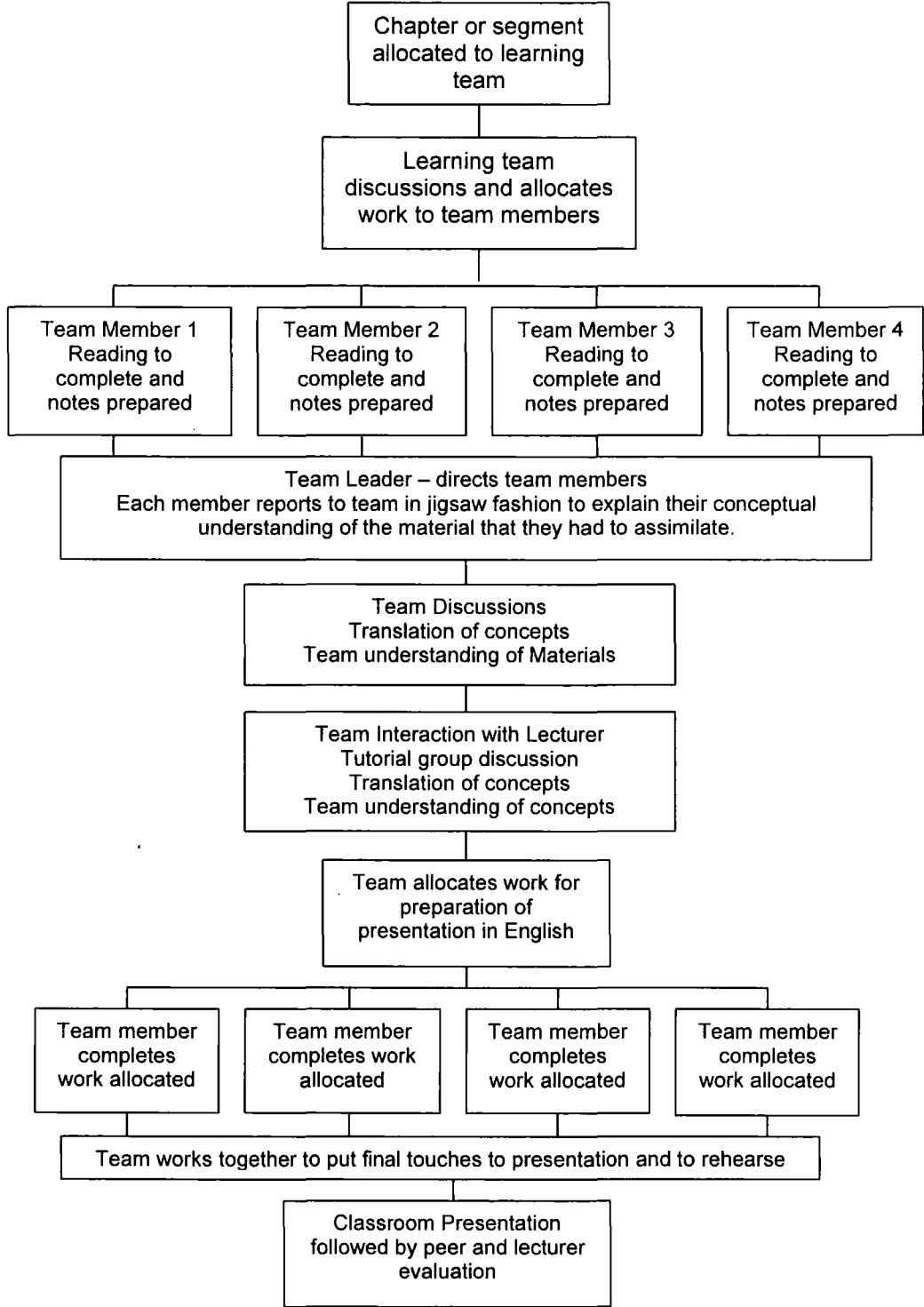


Figure 11. The sequence of classroom interactions for Quality Learning Teams

The fact that part of their assignments had to be completed in their own time and outside the classroom, and with team members encountered only within the context of a particular module, placed even greater responsibility on the student teachers, responsibility that was, however, willingly accepted, as evidenced in their successful

presentations and course-work. Support was also provided in regular tutorial sessions with the lecturer concerned.

The process is illustrated in Figure 11, provided by the researcher.

Implementation of the Study

The study began in September 1997 with a cohort of first year, first semester, pre-service Certificate in Education Course student teachers. The education module being taught was a part requirement of the programme of the Professional Education Studies for the course, entitled 'Instructional Design and Strategies for Effective Teaching' (see appendix 24), a module which used educational psychology texts as the basis for its teaching content. This was the first of two Professional Studies Modules to be taught back-to-back by the same teaching team; the second module, 'Classroom Teaching Skills' (see appendix 23), was taught in the second semester which started in January and finished in July.

Before the semester began in September 1997, the seven lecturing staff, together with the module coordinator, the Principal Researcher of the study, held a series of meetings to discuss the first module, in the light of the previous year's experiences. Discussions encompassed the module materials and strategies to be used to enhance student understanding and motivation. The results of these discussions were recorded (see Chapter 6, p.127 and also appendix 26).

Based on these meetings, the decision to proceed with the study was taken. In order to maintain some consistency of approach and thus allow for the gathering of valid data, six members of staff agreed to use quality learning team strategies in their classrooms and, to provide a measure of comparison; two opted for a traditional pedagogy, but used the same teaching materials.

All students who were to study the module, 'Instructional Design and Strategies for Effective Teaching' (see appendix 24), met together initially. The meeting gave a general introduction to the module and essential information regarding module content and assessment requirements. The Principal Investigator explained to the meeting that it was the intention to collect information on working in groups, or teams, for collaborative and cooperative learning. The pre-intervention questionnaire was administered at this point. The two lecturers who had opted not to be a part of the innovative approach left the auditorium with their classes immediately after the questionnaire was completed. The six classes to be exposed to the innovative

pedagogy were introduced to the Quality Learning Team strategy which was explained as a student-centred approach to teaching and learning. The six classes then dispersed to their individual classrooms where their lecturers explained in more detail what might be expected of them during the module.

Certificate in Education Course – Second week

The sequence of events inside the classroom began with a preliminary task in which each Quality Learning Team presented their understanding of classroom situations in Hong Kong, based on their own experiences. This required them to work together to prepare notes for their presentation. Video recordings were taken of all presentations for later observation by all the lecturers in the team and the Quality Learning Teams concerned.

Certificate in Education Course – Third and subsequent weeks

Much of the work in the classroom involved the Quality Learning Teams in presenting their work to their classmates. This was a confidence-building exercise which also afforded much-needed experience giving a presentation, something few had had previously.

As the learning materials began to involve more complex conceptual ideas and educational theories, closer supervision by the lecturer was needed to guide the Quality Learning Teams. The sequence of classroom interactions regarding teaming is illustrated in Figure 11 (p.70). A more complete sequence is shown in the problem-based learning (PBL) cycle of learning illustrated in Figure 7, (see p.54).

Three of the intervention classes met on Tuesday mornings, the remaining classes, including the non-intervention groups, met on Thursday afternoons. This allowed all lecturers to visit each other's classrooms to observe and take notes, or to team teach on occasion. Notes from tutorials and observations proved invaluable as the teaching team were encouraged to evaluate their colleagues' lessons. These notes form part of the evaluation for the study and will be discussed later.

The first stages of the study, in relation to the structure of the Certificate in Education Course and the implementation of the study, are summarised in Table 1.

A great deal of staff input was necessary during this phase to ensure sufficient supervision of the students as they settled into their new role and took responsibility for much of their own learning. Although classes included other teaching strategies, the

major strategy used Quality Learning Teams (QLT). Initial questionnaires, observations of QLTs and weekly teaching staff discussions also took place during this period.

Table 1: A Summary of the Stages, Phases, Data Collection and Structure of the Study

Timescale, Phases and Stages of Data Collection and Structure of the Study: 1 st Semester 1997					
Phases		Data Collection and Methods for First Year of Study	Schedule for Lecturing Staff and Student Teachers		Certificate in Education Programme
1 st Semester of First Year	Sept to Dec 1997 repeated in 1998		Staff Activity	Student Activity	
	1 st Phase Initial two weeks of Semester	Module introduction on entry to the course of study. Pre-intervention Questionnaire administered.	Staff meetings to discuss strategy. Introduce the use of pedagogy.	Introduction and discussions. Complete questionnaire	Orientation of Course. Classes introduced to quality learning teams.
	2 nd Phase Next ten weeks to end of Semester.	Classroom Observation. Student Interviews. Portfolio Journal. Reflective Statements.	Supervise student teams. Video presentations. Evaluate student progress	Work in quality Learning Teams. Prepare presentation for class. Reflective statement of learning and strategy used	First semester programme. Classes for Professional Studies modules.

The second semester saw the introduction of a new module, 'Classroom teaching Skills', with new materials and different texts, but the immediate implementation of QLTs was possible because of the student-teachers' exposure to the strategy the previous semester. The second semester phases are shown in Table 2.

Table 2: A Summary of the Final Stages, Phases, and Data Collection for the Study

A Summary of the Final Stages, Phases, and Data Collection for the Study: 2 nd Semester 1998					
Phases		Data Collection and Methods for First Year of Study	Schedule for Lecturing Staff and Student Teachers		Certificate in Education Programme
2 nd Semester of First Year	Jan to July 1998 Repeated in 1999		Staff Activity	Student Activity	
	3 rd Phase Twelve weeks. Entire Semester	Staff Interviews. Classroom observations. Team tutorials	Weekly Staff discussions. Strategy meetings. Use Quality Learning Team pedagogy. Classroom observations	Learning team leader, recorder, compiler of reflective notes were identified. Team discussions. Tutorial sessions. Some interviews. Presentations to class.	Second semester programme. Classes for Professional Studies modules.
	4 th Phase End of Second Semester	Post-intervention questionnaire administered. Student Interviews.	Administer post-intervention and post-Non Intervention questionnaires. Staff discussion. Strategy meetings	Present individual Portfolios. Complete post Intervention and Non Intervention questionnaires. Student interviews.	Second semester programme. Professional Studies modules evaluation process.
	5 th . Phase One year after completing 2 nd semester. End of course	End of course questionnaire administered. Student and Staff Interviews.	Administer end of course questionnaire. Staff interviews	Complete end-of-course questionnaire. Student interviews.	End of course. Graduation

Following the fifth phase shown in table 2, the final phases of the study were concerned with the views of graduates who were in full-time teaching. A selected number were interviewed at the end of their first and second years of teaching (see table 3.). This information forms part of the evaluation of the study.

Table 3: A Summary of the Interview Schedule for Graduates in Full-Time Teaching

A Summary of the Interview Schedule for Graduates in Full-Time Teaching: End of 1st and 2nd Year of Full-time Teaching			
Phases		Data Collection and Methods for Graduates	Schedule of Staff Activity
End of First and Second Year of Full-Time Teaching	2000 - 2001		
	6 th Phase End of first year of teaching	Graduate Interviews.	Arrange and conduct interviews of selected graduates
	7 th Phase End of second year of teaching	Graduate Interviews	Arrange and conduct interviews of selected graduates

Procedures for Data Collection

1. The Research Approach

In Habermas' (1979) words, "the way in which we collect data will have a highly significant effect on the degree to which the researcher will allow a critical analysis of the phenomenon under investigation". With this in mind, the author adopted an 'action research' approach within the classroom. This approach was selected as it lent itself extremely well to the circumstances and to the availability of student respondents and lecturing staff. The differences and similarities between action research and other methodologies are described by Griffiths and Davies (1993, p. 45), as follows:

"This method of research is usefully distinguished from a range of other kinds of social science research by its emphasis on action. It is different from 'positivist' research, which uses the physical sciences as a model. Action research is not trying to identify large-scale causal laws. Instead it focuses on the rigorous examination of a single situation, using knowledge drawn from experience and research findings to illuminate it, in order to improve it. The differences from 'positivist' models are the most obvious, but it is important to note that it may make use of 'qualitative' or 'ethnographic' research techniques, it is different from other qualitative or ethnographic research in that it is not seeking to contribute to large scale explanations of events. Nor is it seeking to discover grounded theory by the meticulous analysis of data. The purpose is always to improve practice, rather than to find truths, universal or particular". (Griffiths and Davies, 1993: 45)

This fits well with Stringer (1996) who describes the action researcher as being an integral part of the research who 'provides leadership and direction to other stakeholders in the research processes'. The data collection provided an insight into

the 'processes of change' and the lecturer provided the impetus as the 'change agent' who informed, encouraged and supported each Quality Learning Team as they went about the business of learning (Uzzell, 2000, p.336).

The intent of the study was to enact change, over time, in each of the student teachers. The results were based on samples that were randomly selected from each of the two cohorts (with the exception of the student portfolios), to give an overview of the cohort as a whole, rather than the 'longitudinal' tracking of individual students.

2. Methodology for the Study

The research problem studied and the methodology utilised encompassed a number of avenues, involving both Qualitative and Quantitative analysis. Marshall and Rossman (1995, p.11) describe the qualitative researcher as being 'immersed in the everyday life of the setting chosen for the study', whose job it is to value the participants' perspectives and views as an interactive process between the researcher and the participant. The student teachers selected for interview were randomly selected and the interviewer was a Chinese-speaking research assistant who was fully conversant with the requirements of the project. Using a Chinese speaker in this way allowed the interviewees the freedom to fully express themselves in their mother tongue, without the constraints that English might have presented. The research assistant, funded by the departmental research fund, received training in the interviewing techniques from the teaching team and transcribed all interviews into English.

The quantitative part of the data collection was carried out by pre- and post-intervention questionnaires, followed at the end of the course of study by a final questionnaire. The questionnaires were designed with Chinese learners in mind, as discussed in Watkins (1996b), Biggs (1983) and Entwistle and Marsden (1983).

The methodology included the following strategies:

- A pre-class discussion with staff and students and description of the methodology/strategy to be employed for the teaching and learning on the module being taught.
- A pre-survey questionnaire to determine knowledge of working in teams/groups, administered before classes formally started.
- A post-intervention questionnaire to establish views on the use of Quality Learning Teams.
- A post-intervention interview of randomly selected students, carried out by a research assistant, to acquire fuller descriptions and the feelings of each individual. The interviews were in the Chinese language and later transcribed into English. The research assistant was unknown to the students.
- A second interview was conducted at the end of the course of study, as the student teachers were about to graduate. This served to illustrate their feelings about the Quality Learning Teams after having had a full year to reflect on it and to enable them to make more informed comments about the strategy's impact on their learning.

- Further interviews were conducted by the researcher with selected graduates after their first and second years of teaching.

It was also clear that this particular action research would require a model of operation that was cyclical in design. The stages of developing action research, according to Hitchcock and Hughes (1995, p. 28), follow the pattern:

- Identification of the problem
- Collecting information / data
- Analysing the data
- Planning action / intervention
- Implementing and monitoring the outcomes

Evaluation

1. Summative Data and the Limitations of this Study

The summative data was collected from five questionnaires administered at the beginning of the course, the end of the first year, which coincided with the end of the second semester and of the education modules taught during the study, and at the end of the course.

The five questionnaires were designed with the assistance of the teaching team during the pre-module meetings. The wording was consistent with Uzzel’s (2000) view of the ‘insider looking out’. It was not the intention of the questionnaires to generate a vast amount of data, so a decision was made early in the teaching team discussions to limit the questions to eleven, the wording of which was the same on all five questionnaires, with the exception of the tenses which were changed according to the time-scale.

The questionnaires were administered to the following sample:

- (a) Pre-intervention Sample..... Data Set ‘A’ (1)
- (b) Post intervention Sample..... Data Set ‘B’ (2)
- (c) Pre-non-intervention Sample..... Data Set ‘C’ (3)
- (d) Post non-intervention Sample..... Data Set ‘D’ (4)
- (e) End of course intervention Sample.. Data Set ‘E’ (5)

The data resulting from the questionnaires, together with student interviews, provided the basis for students’ evaluation of the usefulness of the Quality Learning Team strategy. Each of the data sets was subjected to independent t-tests, Anova and Tukey tests to establish results with significant factors highlighted. The results form part of the evaluation of the study.

The questionnaires also asked students their opinions of the following:

- The three aspects that they most liked when using QLT.
- The three aspects that they least liked when using QLT.

These two items allowed the student teachers to express themselves in English or Chinese in a qualitative way. The information collected consisted of short sentences which were placed, by the researcher, in a relatively small number of response categories. The analysis will form part of the evaluation of the study.

The questionnaires also collected personal data which included school background, age, gender, and reason for attending a teacher education course. This data also formed part of the evaluation of the study.

The questionnaires were anonymous and it was not possible to compare or analyse individual student responses. The questionnaires can be viewed in Appendix 13, 14, and 15.

2. Qualitative and Process Data and the Limitations of this Study

The qualitative or process data was collected from activity within the classroom and from the experiences of the student teachers as they worked with the QLT strategy. The data, which allowed interpretation of the attitudes and emotions of both student teachers and teaching team throughout the study, was collected from the following sources:

- Questionnaires
- Teaching team discussions
- Classroom observations
- Student interviews
- Staff interviews
- Portfolio journals

(a) Qualitative Data from Questionnaires

Each of the questionnaires included two qualitative sections, the first asking for student teachers' views of what they *liked best about using learning teams*, the second, their views of what they *liked least about using learning teams*. The responses were corroborated in the interviews.

The data collected was extensive and had to be organised on a flow chart to establish items, issues and areas that could be then categorised and coded by the researcher. The coding was arbitrary and organised for convenience.

(b) Classroom Observation

Classroom observation was conducted throughout the intervention period, with lecturing staff making anecdotal observations of students' behaviour in the classroom,

of interactions between student teachers in their Quality Learning Teams and between the students and their lecturers. The students were observed by the lecturer conducting the session and also by his/her colleagues. Everything was done to avoid any disruption that might have occurred as a result of this observation. Many observations were supported by video recordings which were replayed to each Quality Learning Team, so that members could evaluate their own progress in learning, understanding and peer relationships and in presentation.

(c) Student Interviews

It was decided to use a semi-structured approach, with the interviewer at liberty to interject with additional pre-arranged prompts in order to elicit fuller responses. The interview schedule was designed by the teaching team using the questionnaires as a basis for questions that were to be asked (see Appendices 18, 19, and 20).

The interviews, because they were conducted with different samples, provide a cross-sectional rather than longitudinal view and were aimed at gathering data about the cohort in general, as opposed to tracking individual students. The samples were selected as random numbers from each of the classes taking part in the study. Each class was, therefore, represented in the sampling process and interviews were cross-sectional and not from any particular class.

The separate groups of randomly selected student teachers were interviewed in Chinese by an independent interviewer. The interviews followed a pattern of about fifteen to thirty minutes each and were taped and transcribed for analysis. The first interviews took place on 26-09-1997, the second week of the first semester (see chapter 6, p.128), and represented about 10% of the student year body.

The first interview was to gain a global perspective or a 'wide angle view' (Erikson, 1985), and served the purpose of examining student personal data and exploring their conceptual understandings of learning, teaching and collaboration through learning teams. The second and third interviews were post-intervention interviews to glean differences in conceptualising the Quality Learning Team pedagogy. The second interview, using a different randomly selected sample, took place at the end of the first semester which was the end of a module of study and served to provide immediate feedback on relationships within the class and on the understanding the students might have gained from the Quality Learning Team pedagogy. The final interview, using a different randomly selected sample from those samples used for the first and second interviews, took place during the first full-time year of teaching in Hong Kong schools

for Course graduates, when selected teachers were invited back to the Institute of Education. This interview served to establish any long-term effects of the pedagogy and if the teachers were using or being allowed to use the Quality Learning Team strategy.

Subsequent interviews were conducted, using a less structured format and allowed the opinions of the interviewees to be expressed more fully. The interviewer who had conducted the first interviews was used, but was not known to the student teachers who took part in the second interviews. The interviewer was not directly employed by the Hong Kong Institute of Education and this served to help the student teachers to relax as they did not perceive any threat, nor did they feel obliged to give the kind of answer they might have done in order to please an interviewer known to them. It was important not to influence the interviewer or the interviewee with the researcher's views.

(c). Graduate Interviews

The study was completed with the interviews of graduates from the cohort of students when they were teaching in Hong Kong schools. The interviews took place in two phases, the first in 2000 and the second in 2001 and sought to ascertain the opinions of the teachers about their own experiences of QLT as students and whether or not they had wanted, or been able, to implement the strategy in their own classrooms. The data collected has been used in the evaluation of the study (see appendix 21).

(d). Staff Interviews

The teaching team members were interviewed by the Principal Investigator, the researcher for this study.

The teaching team members were all interviewed at the end of the intervention period to solicit their views on the usefulness of the QLT strategy, the difficulties encountered, the positive and negative aspects and to ascertain if the individual staff members would use the QLT strategy again in their teaching. The interviews were each approximately thirty minutes long and the analysed data is used as a part of the evaluation of the study.

The interview schedule was discussed and designed by the Principal Investigator and the teaching team and it was decided to use a semi-structured approach with staff as well as students.

Limitations of the Interview Data

The vast amount of diverse data inhibited its analysis in the time available. It was the intention of the researcher to analyse the data using NVIRO or NUDIST software, but the amount of information meant that it was difficult to categorise and time constraints prevented such analysis, helpful though it would have been.

(c) Student Portfolio Journals

The reflective portfolio which each student teacher had to produce and update with weekly reflective statements and evaluations was the major assessment tool for the modules being studied and proved a valuable source of data. The portfolio was a new concept for most of the student teachers who had previously only experienced examinations of one sort or another. Each student was asked to evaluate everything they did within the classroom, in their Quality Learning Teams and how they developed as a Quality Learning Team over time. They also had to comment on any events or experiences gained through their Quality Learning Teams which would impact on their thinking and learning about teaching. The portfolios were assessed by lecturers and written feedback given on a weekly basis. The portfolios provided an ongoing record of the student teachers' experiences which impacted on their pedagogic knowledge and provided an insight into the effectiveness of the teacher education programme that they were undertaking. It was found at the end of the first Semester that, not only had the student teachers found the whole idea of portfolio assessment strange and unlike anything that they had done before, but that the reflections that they deemed satisfactory in terms of depth of conceptual understanding did not fully illustrate what they were thinking. They had difficulty in demonstrating what they had learned. This was attributed to their problems with the language of instruction (English) and their subsequent comprehension of the educational concepts that they were studying. The Quality Learning Teams met during the second last week of the first semester to examine each team member's portfolio in order to assist in the selection of reflective statements and other work that provided evidence of learning and demonstrated conceptual understanding of the module objectives and content. The final week of the semester was taken with individual students presenting their portfolios in front of a panel of their peers and lecturer. The panel and lecturer each gave an evaluation of the presentation and awarded a grade which was useful in providing a final grade for each student teacher. The peer panels were changed so that all student teachers in the class had to sit on an evaluation panel. The panels were arranged so that no panel member would evaluate their own learning team members.

As the students settled into their new roles as members of Quality Learning Teams, however, they gradually learned to share thoughts and feelings. Their second Semester portfolios provided much greater depth and proof of learning, demonstrating a deeper understanding of both education modules. As the student teachers accepted greater responsibility for their learning and built on their understanding of portfolio assessment, their confidence enabled them to move up Maslow's (1970) hierarchy of basic needs and their motivation and enjoyment of the course were enhanced.

Methods of Data Analysis for the Study

This research is designed to develop a 'grounded theory' about the nature of and influences on student teacher thinking with regard to pedagogy. The 'grounded theory' approach, according to Strauss and Corbin (1994), results in a theory being formed from the data. Hitchcock and Hughes (1995) emphasise the importance of qualitative data which is concerned primarily with 'discovery', through a systematic and intensive analysis of empirical data in a microscopic way to establish a detailed 'grounding in theory'. The complexity of the qualitative data, combined with the experience of the researcher, leads to identification of the processes in analysing the data, allowing the researcher to develop new concepts and theories (p.297).

The constant interaction and comparison of the observation, questionnaire and interview analyses of student teachers during their education course, served to develop a theory on the student teachers' pedagogical knowledge and thinking and how they might be influenced in their classrooms of the future.

Stages of Data Analysis for the Study

The methodology incorporating continual comparison, during the analyses of data suggested by Hitchcock and Hughes (1995) and Glaser and Strauss (1967), was utilised as a well-grounded process. Firstly, data were compiled into units of basic information, termed by Lincoln and Guba (1985, p.345) as 'the smallest piece of information...that can stand by itself'. This creates emerging patterns crossing all areas under scrutiny. As these patterns emerge, additional dimensions are added to the data analysis by the identification of common elements which establish relationships and further patterns. These are then categorised into a network, or map, which shows how they are related to one another and how that relationship is organised into categories and sub-categories. Networks are then created, showing how the various categories are related to one another and how they are integrated by grouping and detecting common characteristics and processes. The networks created by integrated groups serve to detect common characteristics and processes and delineate emerging data by

a comparison across categories in order to test the integrity of the group membership. To support or disprove the original theory, negative cases, consisting of those that do not follow the patterns and categories, are sought.

Triangulation of Data

Triangulation of data was possible, using three different sources of information (Figure 12):

- Staff
- Students
- Assessment strategies using Portfolio

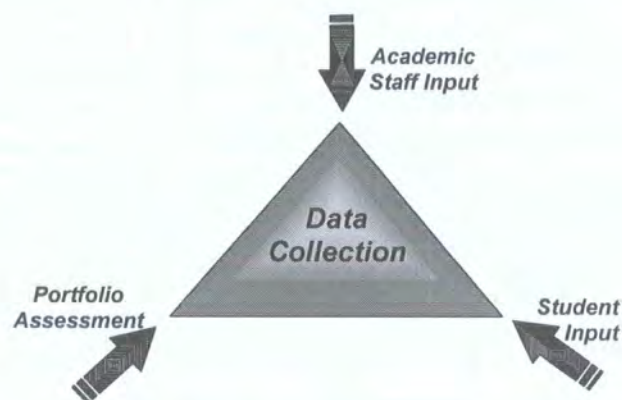


Fig. 12. Triangulation of Data sequence

This aimed to improve the probability of credible findings and interpretations and provided the reliability necessary for a valid assessment and analysis (Denzin, 1970; Lincoln and Guba, 1985; Fielding and Fielding, 1986 and Maxwell, 1996).

Ethical Issues for the Study

With responsibility for the English elective course, the author acted as a module coordinator and also as a practicum or Field Experience tutor to 50 student teachers, providing general supervision and assisting with their classroom practices.

A concern raised by some of the student teachers was the perceived pressure to imitate the style and pedagogy used in the modules at the Institute of Education, and still very new to most of them, during their teaching practice. Debate on these concerns was encouraged and discussion took place in the classroom, via e-mail and in tutorial groups and, while the benefits to their professional growth were highlighted, the

students were assured that no such pressure would be applied during their practice in schools where such innovation was known to be discouraged.

In line with the Hong Kong Institute of Education regulations, second markers were used in the assessment of all of the student teachers' work.

The Ethics committee of the University School of Education provided ethical clearance for the study.

Summary

In describing the design of the research and the research methods adopted, this chapter serves to illustrate and explain the procedures used in collecting and analysing the data. It is an empirical study, within an authentic context, which investigates and provides evidence and data drawn from multiple sources. The students who took part in the study provided a representative sample of the general level of the annual intake for the Certificate in Education Courses. Despite the demise of the Certificate in Education Courses which are due to be phased out in 2005, to be replaced with degree only courses, this study will provide information on pedagogy that may continue to be utilised in the teacher education setting in Hong Kong.

Chapter 5

Results: 1 Questionnaire Data and Data on Student Performance

Introduction

The aim of this chapter is to analyse the data collected from the five questionnaires administered to the intervention and non-intervention groups. The data is derived from eleven questions that were asked in each of the five questionnaires, administered in five phases, at the following stage points:

- 1. **Pre-intervention (1997):** questionnaire administered to all student teachers in the course cohort. This included both the six classes which took part in the intervention of the Quality Learning Team pedagogy and the comparison group of two classes who did not take part in the intervention.
- 2. **Post-intervention (1998):** questionnaire administered at the completion of the two education modules to the six classes which took part in Quality Learning Teams and the two classes which did not.
- 3. **Post-course (1999):** questionnaire administered to a randomly selected group of 46 student teachers who had taken part in the Quality Learning Team strategy at the completion of the two-year Certificate in Education course
- 4. **Pre-intervention (1998):** questionnaire administered to all student teachers in the course cohort. This included both the five classes which took part in the intervention and the comparison group of one class which did not take part in the intervention of the Quality Learning Team pedagogy.
- 5. **Post-intervention (1999):** questionnaire administered, at the completion of the two education modules, to the five classes who took part in Quality Learning Teams and the comparison group of one class that did not,

The phases of administering the five questionnaires are identified in the data analysis as follows:

Sample	Phases	Student Sample		
		1997/98 n	1998/99 n	Total n
Data Set 'A' (1)	Pre-Intervention Sample	196	147	343
Data Set 'B' (2)	Post-Intervention Sample	193	139	332
Data Set 'C' (3)	Pre-Non-Intervention Sample	65	29	94
Data Set 'D' (4)	Post-Non-Intervention Sample	64	29	93
Data Set 'E' (5)	End –of-Course (Intervention Sample)	48	–	48
		566	344	910

Table 4. Sample Grouping

The data, collected through questionnaires is first analysed, followed by a data analysis of the assessment of student performance in both intervention and non-intervention classes. This was carried out at class level, ensuring anonymity for individual students.

The questionnaire surveys aimed to provide information on the student teachers' experience, and on their perceptions, of the Quality Learning Team strategy. A comparison of questionnaires at the outset, at the completion of the education modules and at the completion of the course itself indicates changes in the student teachers' attitude towards their studies and the QLT strategy and in their personal development.

Construction of Questionnaires

The teaching team developed the questionnaires with guidance from the work of Biggs (1987), Watkins (1996b) and Entwistle and Ramsden (1983) and their "Learning Process Questionnaire" and the "Approaches to Study Inventory", in order to accommodate the student teachers' culture and the fact that English was a second language for the majority of the students.

Teaching team members established an optimum number of questions, together with the Likert scale that would be used. The questionnaires contained 11 items, all focusing on learning in a team situation. Ratings were on a five point scale as follows: 'strongly agree', 'agree', 'neutral', 'disagree' and 'strongly disagree'. The 'strongly agree' and 'agree' ratings were positive indicators for the benefits of team learning and for using QLTs. The 'disagree' and 'strongly disagree' ratings were negative, indicating resistance to the use of QLTs. The items were specifically aimed at learning teams: their usefulness, their limitations, their social advantages, their contribution to the student teachers' social development and their usefulness in improving the students' English language skills. There were also two open-ended questions asking which of the learning team factors they liked 'best' and 'least'.

Questionnaire validity was ensured by piloting the instrument with the 1996 student intake, which guided the teaching team to establish the five questionnaires, examples of which can be examined in Appendices 12, 13, 14, and 15.

The questionnaire consisted of three parts: (a) a collection of basic demographic data from each student, (b) eleven questions about the use of Quality Learning Teams and (c) an opportunity for student teachers to provide a free response in the categories, "best liked" and "least liked" aspects of the QLT pedagogy. The data collected provided quantitative and qualitative, as well as demographic, data.

The questionnaires were administered to all of the student teachers as they started their education course, eliciting views and opinions on group work and learning in teams from their school experience. Eight classes were administered with the pre-intervention questionnaire.

The second set of questionnaires was administered to the six intervention classes and to the two non-intervention classes as they completed the education modules.

The third and final set of questionnaires was administered to a computer generated random sample of student teachers at the end of the two-year Certificate in Education Course.

The confidentiality, necessary for genuine and open responses in the different sections of the questionnaire, was ensured through anonymity. It was, therefore, impossible to determine which student, class or teaching team member was indicated. Confidentiality for the teaching team members was also important so that there was no apportioning of either approbation or blame when comparisons of the module results were analysed.

The pre-intervention questionnaires were administered to all eight classes, both intervention (6) and non-intervention (2), during the first week of teaching of the education modules, before the QLT pedagogy was introduced to the intervention classes.

The students completing the post-intervention questionnaire comprised (1) the six intervention classes and (2) the two non-intervention classes using traditional pedagogy. The comparison between the first questionnaire administered at the beginning of the education modules and the post-intervention questionnaire was analysed, but the responses, although from the same students as those who completed the pre-intervention questionnaire, could not be compared student for student as individual student teachers could not be tracked in order to maintain confidentiality. Likewise with the non-intervention classes, an analysis was possible but, again, without tracking individual student teachers.

The post-course questionnaire was administered to post-intervention student teachers, providing valuable data for comparative purposes but, again, without tracking individual student teachers.

The open question on “least liked” and “best liked” aspects of QLTs provided an opportunity for student teachers to make comments, if they so chose, but completion of these sections was not mandatory. The views expressed at the pre-intervention stage, the post-intervention stage and at the post-course stage would, therefore, not necessarily represent the views of the same students. The questionnaires, therefore, provided a cross-section of views of student teachers as they progressed through the course.

The language used on the questionnaires was English. The same set of questions was used throughout the questionnaires, changes only occurring to represent the different groups, intervention and non-intervention, pre- and post-intervention and post-course. The questionnaires can be examined in Appendices 12, 13, 14, and 15.

The data collected from the questionnaires makes pre- and post-intervention analysis possible. Analysis was carried out using the Pearson t-test for comparison between two means. Anova, Tukey and Chi-Squared tests were utilised to establish comparisons or trends in the data.

Samples – Intervention and Non-Intervention - Demographic Data

The demographic data collected from the questionnaires is the first of the qualitative data to be discussed. The following are the student teachers' responses to demographic questions and their reasons for choosing a teacher education course at the Hong Kong Institute of Education.

The annual survey carried out by the Student Affairs Office at the Institute of Education showed a population of about 81% female student teachers for the academic year 2000 – 2001. The figure for the Certificate in Education Course has traditionally been slightly higher at about 86% female and 14% male student teachers. The age of the students on the Certificate in Education course ranged from 18 to 28 years of age, the majority aged between 19-22 years.

There was a discrepancy in the information provided by the Institute's survey and the answers provided by the students with regard to their place of birth. The questionnaires indicated that a slightly greater percentage of student teachers had been born outside Hong Kong: more students had been born overseas than previously and officially supposed. Informal discussions with individual students later indicated that a large number of students' parents had immigrated to Hong Kong since the 1970's.

Responses of student teachers to the pre-intervention questionnaire are illustrated in tables 5 to 9. Of the 449 pre-service, Certificate in Education (Secondary) students who completed the pre-intervention questionnaire for the 1997 and 1998 intakes, 14 failed to complete the demographic data section of the questionnaire. There were, therefore, 435 valid responses for analysis.

Question:
Why did you choose to study at the Hong Kong Institute of Education?

In Table 5, 234 (54%) pre-service student teachers indicated that they had been obliged to accept places on a teacher education course in the absence of offers from other tertiary institutions. A small number, 52 (12%), indicated that they were satisfied and quite happy, a place at the Hong Kong Institute of Education being their first choice. Job security was seen by 14% of the respondents as an important element and economic reasons were cited for their choice of tertiary education, the economic downturn in the region prompting many to opt for a teaching career, with its civil service conditions and relatively stable salary.

		n	%
Reason for choice of tertiary study	Teaching 1 st Choice	52	12%
	Job Security	61	14%
	Family Pressure	64	15%
	No University Offer	234	54%
	Salary Attractive	24	5%
		435	100%

Table 5. Reason for choosing to study at the HK Institute of Education

Question:
What type of school did you attend before attending the Institute of Education?

The information provided in Table 6, concerning the students' school backgrounds, indicated that a large number, 202 (46%), of the student teachers had attended Band 1-2 schools, and, it transpired later, in their introductory presentations, that they had expected to proceed to a university. A relatively large number, 145 (33%), had attended Band 3-4 schools and they too indicated later that they had hoped for an offer of a university place. The Band 5 students, numbering 76 (18%), when they later made presentations and were interviewed, indicated that they were happy to gain a place on a teacher education course.

		n	%
Previous school attendance	Band 1 - 2	202	46%
	Band 3 – 4	145	33%
	Band 5	76	18%
	Technical and Vocational	10	2.5%
	International School	2	0.5%
		435	100%

Table 6. Type of school attended

Question:

In what country were you born?

The place of birth illustrated in Table 7, shows that the majority of the student teachers, 340 (78%), were born in Hong Kong. Cultural differences must, therefore, be taken into account with the remaining 95 (22%) as they may well have influenced their behaviour and their perceptions of education and career.

		n	%
Country of Birth	Hong Kong	340	78%
	Mainland China	58	13.25%
	Other Asian Countries	30	7%
	Europe	2	0.5%
	North America	1	0.25%
	Macau	4	1%
		435	100%

Table 7. Country of Birth

Question:

What examinations have you taken and/ or what qualifications do you have?

Performance in examination is illustrated in Table 8 and shows that 332 (76%) of the student teachers sat for the Hong Kong 'A' level examinations and that the majority of them did not attain acceptable grades for university placement. The 6 (1.5%) respondents with a degree had made the career decision to become teachers and were happy to be attending the Institute of Education, but thought that they should have been attending a higher level teacher education course. The remaining 97 (22.5%) were those whose qualifications were below those required for entry to a university course and who therefore chose to attend the teacher education course at the Hong Kong Institute of Education.

		n	%
Qualifications Held	Hong Kong 'A' Level	332	76%
	Hong Kong 'O' Level	82	19%
	Other Qualifications	15	3.5%
	Degree	6	1.5%
		435	100%

Table 8. Type of qualifications

Question

What is your age?

The student teacher age range is shown in Table 9, illustrating that a large sample, 195 students (45%), were 19-20 years of age. This was an indication, corroborated later by informal discussions, that they had extended their school studies for an additional year in order to re-take the 'A' level examinations and improve their results. However, they had failed again to gain entry to university and took up places at the Institute of Education instead. The majority of the students over 21 years of age had either already had experience in the workplace or attended a course at another tertiary institution.

		n	%
Age Range	17-18 years	29	7%
	19-20 years	195	45%
	21-25 years	147	34%
	Over 25 years	64	14%
		435	100%

Table 9. Age range of sample

Age and Gender Distribution of the Sample					
	17-18yrs	19-20yrs	21-25yrs	25yrs and above	Total
Male	0	76	125	7	208
Female	8	287	255	9	559
Total	8	363	380	16	767

Table 10. Distribution of Sample by Gender and Age

A total of 910 questionnaires were administered during the study. Table 10 shows a total of 767 responses on gender and age, the difference between the total number of questionnaires distributed (910) and the 767 shown arising because the information for age and gender was not supplied by all of the respondents who completed the questionnaires.

Results

An exploratory factor analysis was carried out to establish factors across the five questionnaires for the eleven items. **One** factor was extracted, labelled '*teamwork*'. Eigenvalues are shown in Appendix 30, with criterion for loading more than 0.5.

Table 11 is an overall description of means using a one way ANOVA to examine each of the samples to establish significant differences between them.

ANOVA Output on Teamwork					
	Sum of squares	df	Mean Sq	F	significance
Between groups	18.734	4	4.684	19.930	.000
Within groups	212.668	905	.235		
Total	231.403	909			

Table 11. Overall description for Significant Differences between Samples

From the ANOVA result it is found that there was significant difference between groups ($F=19.93$, $p < 0.000$).

Table 12 illustrates the 'Teamwork' Factor of Sample Means and the significance between samples.

		Pre-intervention sample Data Set A (1)	Post-intervention sample Data Set B (2)	Pre-non-intervention sample Data Set C (3)	Post-non-intervention sample Data Set D (4)	End-of - Course intervention sample Data Set E (5)
Significance <0.05 = * <0.01 = ** <0.001 = ***	Means of each group	2.2038	1.9164	2.2004	2.2760	2.0799
Pre-intervention sample Data Set A (1)	2.2038		***			
Post-intervention sample Data Set B (2)	1.9164			***	***	
Pre-non-intervention sample Data Set C (3)	2.2004					
Post-non-intervention sample Data Set D (4)	2.2760					
End-of-Course intervention sample Data Set E (5)	2.0799					

Table 12. Significant Differences between Samples based on the 'Teamwork' Factor

Table 12 shows that there was a significant difference between the results of the pre-intervention and post-intervention samples. The views on teamwork by the post-intervention sample were based on student experience between pre- and post-questionnaires. Emphasis was therefore placed more on learning and the benefits of QLTs, and less on individual pre-intervention perceptions.

The pre-non-intervention and post-intervention samples show the same dispositions as the pre-intervention sample. This was expected, as pre-intervention and pre-non-intervention samples responded in the same way, with similar concerns.

The post-intervention and post-non-intervention samples show an expected significant difference, as one sample had been exposed to the intervention and the other had not and, therefore, student views would naturally be different.

An analysis of the differences illustrated above follows with t-test analysis of each of the samples (data sets).

Intervention sample responses

(a) Comparisons of data set ‘A’ (1) and ‘B’ (2): Pre- and Post-Intervention samples. (see Table 13)

The results of the t-test assumed the calculation of ‘t’ which depended on Levene’s test and whether the equality of variance could be assumed or not.

(a). Pre-intervention and post-intervention samples

Independent Samples t-Test for Pre- and Post-Intervention Samples					
Items	Means		t-test for Equality of Means		
	Sample 'A' (1)	Sample 'B' (2)	t	df	Sig. (2-tailed)
Question 1 Working in groups will / has be/en useful in class.	2.16	2.09	1.185	673	.236
Question 2 I will/have learn/ed more course content by working in a group/team.	2.40	2.20	3.693	669.	.000
Question 3 I will/have learn/ed more about my colleagues by working with them in a group/team.	2.14	1.87	5.270	673	.000
Question 4 I will/have learn/ed a better presentation as a result of working with my colleagues.	2.35	2.11	3.951	673	.000
Question 5 My reflective skills will/have improve/d as a result of talking with my colleagues.	2.20	2.13	1.385	673	.166
Question 6 My grade for my course portfolio will/has/ve been better if/because I work/ed with my colleagues.	2.70	2.28	6.991	655.9	.000
Question 7 I understand why group/team work is important.	2.14	2.04	1.864	673	.063 (.031)
Question 8 I like to work in a group/team.	2.46	2.05	5.914	673	.000
Question 9 I think that my English skills will/have improve/d because my group team will/has work/ed together on the presentations.	2.76	2.36	5.862	659.4	.000
Question 10 I will use group/team work when I am a teacher.	2.24	1.94	5.601	665	.000
Question 11 I think/know that I will/have gain/ed confidence and self-esteem by working in a group/team.	2.89	1.92	21.486	65	.000

Table 13. - Comparison of results for Data Set A (1): Pre-Intervention Questionnaire
Data Set B (2): Post-Intervention Questionnaire

In all but questions 1 and 5, the pre- and post-intervention responses were significantly different, with student teachers indicating a greater predisposition to 'agree' and 'strongly agree' with the statements by the end of the intervention.

Questions 6 and 11 received significantly more positive responses from Data Set 'B' (2), the post-intervention group who had completed their two education modules, indicating the students' perceptions that their final, overall grade and the standard of their final portfolios would be enhanced as a result of having worked in Quality Learning Teams. Of major significance were the responses to question 11 which indicated that a large percentage of student teachers thought that they had gained more self-confidence by working in a Quality Learning Team.

(b) Comparisons of data set 'A' (1) and 'E' (5): Pre-intervention and End-of-Course Samples (see Table 14)

The end-of-course questionnaire was administered to a computer-generated random sample of the intervention sample comprising 48 graduating students. There were significant differences between the responses to questions 1, 5, 6, 10 and 11 in the pre-intervention questionnaire and the end-of-course questionnaire. An examination of Bar Charts 1 to 11 (see Appendix 33) will give a clearer picture of those differences between the starting students and those finishing their course of study after two years. The end-of-course data was collected one year after the completion of the Quality Learning Teams intervention. During this intervening year, the student teachers had experienced a return to more traditional pedagogy. The Bar Charts (see Appendix 33) illustrate, therefore, differences in student teachers' responses based on their pre-conceptions of Quality Learning Teams and their opinions both after the intervention and during a non-intervention period. The differences must, therefore, be interpreted in the context of both an ignorance of Quality Learning Teams in the pre-intervention sample, and an absence of the Quality Learning Teams pedagogy in the non-intervention year preceding the end-of-course questionnaire.

(Question 1) Working in groups will be / has been useful in class.

Bar Chart 1 shows (see Appendix 33) percentage differences indicating a greater incidence of 'strongly agreed' responses from the end-of-course respondents – a possible reflection of their experiences during the intervention – and fewer respondents indicated 'strongly disagree', 'disagree' and 'neutral' categories. There were also fewer respondents indicating 'Agree'.

(Question 5) My reflective skills will/have improve/d as a result of talking with my colleagues.

The statement on reflective skills improving as a result of working in a Quality Learning Team shows, in Bar Chart 5 (see Appendix 33) that in percentage terms, the End-of-Course respondents were less inclined to agree with the statement. Their neutrality might be interpreted as the result of their non-intervention year.

(b). Pre-intervention and End-of course intervention samples

Independent Samples t-Test for Pre- and End-of-Course Intervention Samples					
Items	Means		t-test for Equality of Means		
	Sample 'A' (1)	Sample 'E' (5)	t	df	Sig. (2-tailed)
Question 1 Working in groups will / has be/en useful in class.	2.16	1.88	2.464	389	.014
Question 2 I will/have learn/ed more course content by working in a group/team.	2.40	2.29	.996	389	.320
Question 3 I will/have learn/ed more about my colleagues by working with them in a group/team.	2.14	2.10	.326	389	.745
Question 4 I will/have do/ne a better presentation as a result of working with my colleagues.	2.35	2.17	1.476	389	.141
Question 5 My reflective skills will/have improve/d as a result of talking with my colleagues.	2.20	2.48	-2.305	56.221	.025
Question 6 My grade for my course portfolio will/has/ve be/en better if/because I work/ed with my colleagues.	2.70	2.50	1.798	389	.073 (.036)
Question 7 I understand why group/team work is important.	2.14	2.08	.607	389	.544
Question 8 I like to work in a group/team.	2.46	2.27	1.445	389	.149
Question 9 I think that my English skills will/have improve/d because my group team will/has work/ed together on the presentations.	2.76	2.69	.533	389	.595
Question 10 I will use group/team work when I am a teacher.	2.24	2.04	1.846	389	.066 (.033)
Question 11 I think/know that I will/have gain/ed confidence and self-esteem by working in a group/team.	2.89	2.46	3.406	54.655	.001

Table 14. Comparison of results:- Data Set A (1): Pre-Intervention Questionnaire
Data Set E (5): End-of-Course Intervention Questionnaire

(Question 6) My grade for my course portfolio will/has/ve been better if/because I work/ed with my colleagues.

The trend of responses regarding improved grades after having worked in Quality Learning Teams was positive, showing a greater percentage in agreement with the statement. The student teachers had, by this stage, worked with the portfolio assessment system for two years.

(Question 10) I will use group/team work when I am a teacher.

The desire to use group or team learning as full-time teachers was positively indicated in the 'strongly agree' category which attracted a bigger percentage of responses.

(Question 11) I think/know that I will/have gained confidence and self-esteem by working in a group/team.

An increase in self-confidence was indicated in the responses to this statement.

(c) Comparisons of data set 'B' (2) and 'E' (5): Post-Intervention and End-of-Course Intervention Samples (see Table 15)

The questionnaire was administered in order to establish views of a computer-generated random sample of intervention respondents who had completed the two-year Certificate in Education Course, the second year of which was a non-intervention period in which traditional pedagogy was used and Quality Learning Teams were excluded. Some group work would have featured in this second year, but not to the same extent as during the Quality Learning Teams intervention period. Whilst the responses of the sample remain positive, 'agreeing' or 'strongly agreeing' with the statements, the significant differences indicated in Table 9, and in the corresponding Bar Charts (see Appendix 32), illustrate some uncertainty as more respondents opted for 'neutral' and fewer for 'agree', in their responses to the statements.

These significant differences of means are indicated for Questions 1, 3, 5, 6, 9 and 11.

(Question 1) Working in groups will be / has been useful in class.

A greater percentage of respondents indicated a 'strong agreement' response to the statement that working in Quality Learning Teams had been beneficial to them in their classes.

(Question 3) I will/have learn/ed more about my colleagues by working with them in a group/team.

Although Bar Chart 3 (see Appendix 33) indicates a lower percentage of respondents choosing the 'Agree' response, accounting for the significant difference indicated in Table 9, the responses overall remain positive, the respondents agreeing that they had learned more about their colleagues by working in Quality Learning Teams.

(Question 5) My reflective skills will/have improve/d as a result of talking with my colleagues.

In percentage terms, the respondents retained a positive view that their reflective skills had improved by working in Quality Learning Teams. The significant difference shown in table 9 is illustrated in Bar Chart 5 (see Appendix 33) as a lesser percentage

'strongly agreeing' with the statement. A slightly larger percentage of respondents opted for a neutral response. The cause of this apparent uncertainty could be attributed to a decrease in the emphasis placed on reflective writing during the non-intervention period.

(c). *Post-intervention and End-of-Course intervention samples*

Independent Samples t-Test for Post-intervention and End-of-Course Samples					
Items	Means		t-test for Equality of Means		
	Sample 'B' (1)	Sample 'E' (5)	t	df	Sig. (2-tailed)
Question 1 Working in groups will / has been useful in class.	2.09	1.88	1.832	378	.068 (.034)
Question 2 I will/have learn/ed more course content by working in a group/team.	2.20	2.29	-.829	378	.408
Question 3 I will/have learn/ed more about my colleagues by working with them in a group/team.	1.87	2.10	-1.596	53.5	.116
Question 4 I will/have do/ne a better presentation as a result of working with my colleagues.	2.11	2.17	-.342	54.5	.734
Question 5 My reflective skills will/have improve/d as a result of talking with my colleagues.	2.13	2.48	-3.045	378	.002 (.001)
Question 6 My grade for my course portfolio will/has/ve been better if/because I work/ed with my colleagues.	2.28	2.50	-1.738	378	.083 (.041)
Question 7 I understand why group/team work is important.	2.04	2.08	-.349	378	.728
Question 8 I like to work in a group/team.	2.05	2.27	-1.478	378	.140
Question 9 I think that my English skills will/have improve/d because my group team will/has work/ed together on the presentations.	2.36	2.69	-2.306	378	.022 (.011)
Question 10 I will use group/team work when I am a teacher.	1.94	2.04	-.756	56.2	.456
Question 11 I think/know that I will/have gain/ed confidence and self-esteem by working in a group/team.	1.92	2.46	-4.257	52.5	.000

Table 15. Comparison of results: Data Set B: Post-Intervention Questionnaire
Data Set E: End-of-Course Intervention Questionnaire

(Question 9) I think that my English skills will/have improve/d because my group team will/has worked together on the presentations.

Although the significant difference of means for this statement is indicated in Bar Chart 9, (see Appendix 33) which shows fewer respondents indicated the 'strongly agree' and a higher percentage indicated 'Agree' and 'Neutral' categories, the respondents remained positive about the improvement of their English skills.

(Question 10) I will use group/team work when I am a teacher.

The response to this statement indicated that the respondents remained generally positive about using groups or teams when they were teachers, although fewer responded in the 'strongly agree' category.

Comparisons between Intervention and Comparison samples.

(d) Comparison of data set 'A' (1) and 'C' (3): Pre-intervention and Pre-non-intervention Samples (see Table 16)

Both groups of student teachers completed the pre-intervention questionnaire at the same time and it was assumed that there would be little difference in their responses to the questions. An examination of table 6 will confirm that there was no significant difference between the groups in any of the responses to questions 1 to 11, indicating that the opinions of the student teachers were very similar at the outset and confirming the researcher's assumptions. Bar charts 1 to 11 will corroborate this (see Appendix 33).

It is important to demonstrate that both groups had very similar opinions at the beginning of their studies before the introduction of the Quality Learning Team pedagogy.

(d). Pre-intervention and pre-non-intervention samples

Independent Samples t-Test for Pre- and Pre-non-Intervention Samples					
Items	Means		t-test for Equality of Means		
	Sample 'A' (1)	Sample 'C' (2)	t	df	Sig. (2-tailed)
Question 1 Working in groups will / has be/en useful in class.	2.16	2.11	.640	435	.523
Question 2 I will/have learn/ed more course content by working in a group/team.	2.40	2.41	-.151	435	.880
Question 3 I will/have learn/ed more about my colleagues by working with them in a group/team.	2.14	2.19	-.667	435	.498
Question 4 I will/have do/ne a better presentation as a result of working with my colleagues.	2.35	2.37	-.299	435	.765
Question 5 My reflective skills will/have improve/d as a result of talking with my colleagues.	2.20	2.22	-.289	435	.722
Question 6 My grade for my course portfolio will/has/ve be/en better if/because I work/ed with my colleagues.	2.70	2.68	.226	435	.821
Question 7 I understand why group/team work is important.	2.14	2.13	.207	435	.836
Question 8 I like to work in a group/team.	2.46	2.45	.142	435	.887
Question 9 I think that my English skills will/have improve/d because my group team will/has work/ed together on the presentations.	2.76	2.77	-.113	435	.910
Question 10 I will use group/team work when I am a teacher.	2.24	2.21	.425	172.1	.671

Question 11 I think/know that I will/have gain/ed confidence and self-esteem by working in a group/team.	2.89	2.86	.411	435	.682
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Table 16. Comparison of results: Data Set A (1) : Pre-Intervention Questionnaire, Data Set C (3) : Pre-Non-Intervention Questionnaire

Comparison sample responses

(e) Comparison of data sets ‘C’ (3) and ‘D’ (4): Pre- and Post-non-intervention Samples (see Table 17)

It was uncertain what information might usefully be collected from this comparison, but, ultimately, there were some significant differences when comparing the groups’ responses to questions 5, 7, 9 and 10.

(Question 5) My reflective skills will/have improve/d as a result of talking with my colleagues.

The development of reflective skills might be attributed to the growth in maturity of the student teachers and an expected outcome of the course, no matter what pedagogy was employed. However, the reflective statements in their portfolios, the main indicator of such development, indicated that there was little improvement, a situation corroborated by the neutral stand adopted by the non-intervention sample in their response to Question 5.

(Question 7) I understand why group/team work is important.

Many classes at the Institute of Education use some form of group work and, as a result, the respondents would have had some exposure to what was described as *team work* and thus be in a position to respond to the question.

The t-test indicated that a greater percentage of the student teachers did not agree that team work was important. This result highlights the need for innovation in current pedagogy in Hong Kong in order to accommodate the Education Reforms which call for increased co-operative and collaborative learning in a student-centred pedagogy.

(Question 9) I think that my English skills will/have improved because my group team will/has worked together on the presentations.

The respondents believed that their English skills had improved and this is significant because the non-intervention groups were taught mainly in Chinese. However, the fact that the learning materials were in English may have elicited this response, class discussions and presentations of necessity being in English.

(e). Pre-non-intervention and Post-non-intervention samples

Independent Samples t-Test for Pre- and Post-Intervention Samples					
Items	Means		t-test for Equality of Means		
	Sample 'C' (1)	Sample 'D' (2)	t	df	Sig. (2-tailed)
Question 1 Working in groups will / has be/en useful in class.	2.11	2.30	-1.591	184.1	.113
Question 2 I will/have learn/ed more course content by working in a group/team.	2.41	2.54	-1.153	185	.250
Question 3 I will/have learn/ed more about my colleagues by working with them in a group/team.	2.19	2.15	.461	186	.645
Question 4 I will/have do/ne a better presentation as a result of working with my colleagues.	2.37	2.49	-1.108	186	.269
Question 5 My reflective skills will/have improve/d as a result of talking with my colleagues.	2.22	2.54	-3.152	185.4	.002
Question 6 My grade for my course portfolio will/has/ve be/en better if/because I work/ed with my colleagues.	2.68	2.72	-.417	186	.677
Question 7 I understand why group/team work is important.	2.13	2.31	-1.721	178.6	.087 (.043)
Question 8 I like to work in a group/team.	2.45	2.38	.495	186	.621
Question 9 I think that my English skills will/have improve/d because my group team will/has work/ed together on the presentations.	2.77	2.30	3.774	186	.000
Question 10 I will use group/team work when I am a teacher.	2.21	2.68	-4.170	153.5	.000
Question 11 I think/know that I will/have gain/ed confidence and self-esteem by working in a group/team.	2.86	2.89	-.277	164.7	.782

Table 17. Comparison of results: Data Set C: pre-intervention questionnaire
Data Set D: post non-intervention questionnaire

(Question 10) I will use group/team work when I am a teacher.

Bar Chart 10 (see Appendix 33) illustrates that there was a significant difference in student teacher perceptions regarding the use of team or group work when they become full-time teachers. When they had completed their education modules, more of the respondents chose the 'neutral', 'disagree' or 'strongly disagree' options.

A number of reasons might be attributed to this opposition to the use of teams or groups: the respondents had not been involved in teams while they studied the education modules and they had not had much experience of the strategy in their own schools or in their other classes at the Institute of Education. Many respondents might also have clung to the traditional belief that it is it is more difficult to gain approbation in a group and better to work individually.

Many of the respondents will also have experienced opposition to team work by teachers and principals in their teaching practice schools and, consequently, they might have regarded the pedagogy as being unwelcome and difficult to organise in their future teaching situations.

Effects of age and gender

With a large percentage (approximately 80%) of the samples, both intervention and non-intervention, consisting of female students, it is inevitable that any results comparing gender will show a female bias.

Independent Samples t-Test of Samples for Gender Differences								
Sample (Data Set)	Questions	Gender		Means		t	df	Sig. (2 tailed)
		M/F	N	Q.	Mean			
Data Set 'A' (1)	Q1 - Q11	Male Female	90 253	Q10	2.392.1 9	2.258	138.3	.026 (.013)
Data Set 'B' (2)	Q1 - Q11	Male Female	94 238	Q4	2.30 2.03	2.313	135.4	.022 (.011)
				Q10	2.15 1.86	3.347	330	.001
				Q11	2.06 1.87	3.094	330	.002
Data Set 'C' (3)	Q1 - Q11	Male Female	24 70	No significant differences recorded				
Data Set 'D' (4)	Q1 and Q3 - Q11	Male Female	24 69	Q1	2.79 2.13	3.420	92	.001
				Q2	2.83 2.43	2.358	91	.021 (.011)
				Q3	2.38 2.07	1.990	92	.050 (.025)
				Q4	2.83 2.37	2.771	92	.007
				Q5	2.83 2.44	2.371	92	.020 (.010)
				Q6	3.04 2.61	2.626	92	.010 (.005)
				Q7	2.67 2.19	2.656	92	.009
				Q8	3.00 2.17	4.017	92	.000
				Q9	2.79 2.13	3.066	31.5	.004
				Q10	3.29 2.47	3.331	30.472	.002
				Q11	3.50 2.69	4.031	91	.000
Data Set 'E' (5)	Q1 - Q11	Male Female	6 42	Q5	3.33 2.36	3.035	46	.004
				Q7	2.67 2.00	2.243	46	.030 (.015)
				Q8	3.33 2.12	3.157	46	.003
				Q9	3.33 2.60	1.983	46	.053 (.025)
				Q10	2.83 1.93	2.425	46	.019 (.009)
				Q11	3.17 2.36	3.816	12.5	.002

Table 18. Analysis of Means for Gender differences for 'Teamwork' of the five Samples

The 48 graduating student sample represented a 100% female response, although the distribution of the sample was random, chosen by computer-generated random numbers.

For convenience of analysis, the age range of the sample was adjusted to compare two age groups and not the four originally specified. The reason for this was the two year duration of the Certificate in Education Course, during which students would pass from one age group to another. The age groups were rearranged for those below twenty years of age and those above.

Table 18 provides analysis of gender differences for 'teamwork' across samples. The significantly different items are displayed for examination. In all significant cases, the male respondents reacted differently from the female respondents, showing less inclination to respond in either of the 'Strongly' categories. Females, however, were more inclined to give their opinion in the areas on the scale outside the 'Neutral' zone.

Question 11 (*I think/know that I will/have gain/ed confidence and self-esteem by working in a group/team*) provided information indicating that female respondents were quite certain that they had gained more in self-confidence, whereas the male respondents were more reticent.

Table 19 provided data on differences due to age. The analysis for the first sample or data set 'A' indicates that the respondents in the younger age group were more inclined to look forward to working and learning in learning teams. The older age group were less inclined to make such positive comments.

At the end of the education modules, at the post-intervention stage, more of the respondents fell into the older age group and the significant differences shown against Questions 4, 7 and 11 show that the respondents were more inclined to agree that they had gained more in self-confidence and in wanting to make use of learning teams when they became teachers,

The third sample, Data Set 'C' showed no significant differences. Data Sets 'D' and 'E' had no younger age group, all students having advanced to the second age group and so there was no comparison or analysis to be made.

Independent Samples t-Test of Samples for Differences due to Age								
Sample (Data Set)	Questions	Age		Means		t	df	Sig. (2 tailed)
		>20yrs <20yrs	N	Q.	Mean			
Data Set 'A' (1)	Q1 - Q11	18-20 21-	200 142	Q3	2.06 2.26	-2.766	297	.006 (.003)
				Q4	2.29 2.44	-1.927	267.6	.055 (.027)
				Q8	2.38 2.57	-2.027	340	.043 (.022)
Data Set 'B' (2)	Q1 - Q11	18-20 21-	129 203	Q4	2.30 2.03	2.313	135.4	.022 (.011)
				Q10	2.15 1.86	3.347	330	.001
				Q11	2.06 1.87	3.094	330	.002
Data Set 'C' (3)	Q1 - Q11	18-20 21-	42 51	No Significant Differences Recorded				
Data Set 'D' (4)	Q1 - Q11	18-20 21-	No results as all respondents in the same age range					
Data Set 'E' (5)	Q1 - Q11	18-20 21-	No results as all respondents in the same age range					

Table 19. Analysis of differences of perceptions on 'teamwork' due to the effect of age on samples

Module Grades

Comparison of Intervention and non-intervention samples for Individual Student Teachers Module Grades at the Completion of the Education Module – “Instructional Design and Strategies for Effective Teaching”.

The module grades, derived from portfolio assessment, are provided to corroborate the analysis of summative data and signify the differences between the intervention and non- intervention or comparison classes. The data on module grades is provided from the official module results entry forms submitted to the registry of the Institute of Education at the completion of modules (see Appendices 29 and 30). For ethical reasons, student names have been altered so that there is no likelihood of individual identification of grades. The class numbers have likewise been altered so that it is impossible to identify individual lecturers or their classes. The two sets of results which were collected are from the cohort of student teachers attending the Certificate in Education Course in 1997 – 1999 and the cohort attending from 1998 – 2000. The module results were collected at the end of the education module – ‘Instructional Design and Strategies for Effective Teaching’, in July, 1998 and again in July, 1999.

The final individual student teacher grades for the education module “Instructional Design and Strategies for Effective Teaching” are illustrated in Tables 22 to 27 and have been moderated by double marking in accordance with the policy of quality assurance at the Institute of Education. Each lecturer was required to submit three high, three medium and three low-grade portfolios to the module co-ordinator who arranged

for a sample of those selected portfolios to be given at random to each member of the teaching team. Included in the final grade was the assessment of the portfolio presentation made by each student in front of a panel of peers and lecturer.

The analysis was carried out first by using the Pearson Chi-Square test to establish significant relationships or differences between intervention and non-intervention samples and student grades (see Table 20).

Pearson Chi-Square Test for Group*Grade

	Value χ^2	df	Asymp. Sig. (2-sided)
Pearson Chi-Square N of valid cases	23.703 437	4	.000

Table 20. Chi-Square Test for Significance between Samples and Grades

The relationship between intervention and non-intervention samples and their module grades is established ($\chi^2 = 23.703$, $df = 4$, $p = .000$) (see Table 20). This was also established for the 1998 and 1999 cohorts showing that similar patterns and trends were demonstrated between intervention and non-intervention, or comparison, classes. The intervention classes for both cohorts obtained significantly better module grades than the comparison classes. The module grade data is shown in Tables 22 (p.104) to 27 (p.105).

Pearson Chi-Square Test for Year*Grade

	Value χ^2	df	Asymp. Sig. (2-sided)
Pearson Chi-Square N of valid cases	1.897 437	4	.755

Table 21. Chi-Square Test for Significance between Year and Grade

The relationship between intervention and non-intervention samples and year is not established ($\chi^2 = 1.897$, $df = 4$, $p = .755$). The Chi-Square test demonstrated that there were no significant differences between the 1998 and the 1999 year and the module grades for intervention and non-intervention classes. Both cohorts produced similar patterns and trends in module grades.

The 1998 and 1999 module grade results demonstrate a similar trend between the intervention and non-intervention samples, which can be examined more graphically in the Bar Charts generated by the Chi-Square test in Appendix 32.

The actual grade results for the intervention and non-intervention samples for 1998 and 1999 are illustrated in Tables 22 to 27.

Module Grades for Intervention classes using QLTs (1998 Results)

		Grade A	Grade B	Grade C	Grade D	Grade E	% n
Class 1.	% n	33.33 11	42.42 14	21.21 7	3.03 1	0.00 0	100.00 33
Class 2.	% n	31.25 10	37.50 12	28.13 9	3.13 1	0.00 0	100.00 32
Class 3.	% n	39.39 13	39.39 13	15.15 5	6.06 2	0.00 0	100.00 33
Class 4.	% n	42.42 14	33.33 11	21.21 7	3.03 1	0.00 0	100.00 33
Class 5.	% n	36.36 12	36.3 12	18.18 6	9.09 3	0.00 0	100.00 33
Class 6	% n	37.50 12	31.25 10	25.00 8	6.25 2	0.00 0	100.00 32
Total		72	72	42	7	0	196

Table 22. Module Grades for Intervention classes using QLTs (1998 Results)

Module Grades for Non-Intervention or Comparison Classes (1998 Results)

		Grade A	Grade B	Grade C	Grade D	Grade E	% n
Class 7.	% n	21.21 7	30.30 10	42.42 14	6.06 2	0.00 0	100.00 33
Class 8.	% n	24.24 8	27.27 9	36.36 12	9.09 3	3.03 1	100.00 33

Table 23. Module Grades for Non-Intervention or Comparison Classes (1998 Results)

Overview of Grades awarded to both Intervention and non-intervention samples in 1998

		Grade A	Grade B	Grade C	Grade D	Grade E	% n
Overview of Grades for Comparison Classes	% n	22.73 15	28.79 19	39.39 26	7.58 5	1.52 1	100.00 66
Overview of Grades for Intervention/ QLT Classes	% n	36.71 72	36.71 72	21.48 42	5.10 10	0.00 0	100.00 196

Table 24. Overview of Grades awarded to both Intervention and non-intervention samples in 1998

An overview of the grades awarded to individual student teachers in the two samples can be examined in the overview Table 24. There was a significant difference between the grades of the two samples, with substantially higher grades being awarded to the QLT intervention classes.

The grade results for the 1997-1998 and 1998-1999 cohorts serve to confirm a similarly significant difference between the intervention and non-intervention, or comparison, samples. It was not the intention of the researcher to investigate the distribution of

grades within different classes as this would attract ethical issues which were not part of this study.

Module Grades for Intervention Samples using QLTs (1999 Results)

		Grade A	Grade B	Grade C	Grade D	Grade E	% n
Class 1.	% n	37.93 11	41.38 12	17.24 5	3.45 1	0.00 0	100.00 29
Class 2.	% n	32.14 9	39.29 11	25.00 7	3.57 1	0.00 0	100.00 28
Class 3.	% n	41.38 12	41.38 12	17.24 5	0.00 0	0.00 0	100.00 29
Class 4.	% n	33.33 10	43.33 13	20.00 6	3.33 1	0.00 0	100.00 30
Class 5.	% n	25.81 8	35.48 11	32.26 10	6.45 2	0.00 0	100.00 31
		50	59	33	5	0	147

Table 25. Module Grades for Intervention Samples using QLTs (1999 Results)

Module Grades for Non-Intervention or Comparison Class (1999 Results)

		Grade A	Grade B	Grade C	Grade D	Grade E	% n
Class 6.	% n	20.00 6	33.33 10	40.00 12	6.67 2	0.00 0	100.00 30

Table 26. Module Grades for Non-Intervention or Comparison Class (1999 Results)

Overview of Grades awarded to both Intervention and Comparison Samples in 1999

		Grade A	Grade B	Grade C	Grade D	Grade E	% n
Overview of Grades for Comparison Class	% n	20.00 6	33.33 10	40.00 12	6.67 2	0.00 0	100.00 30
Overview of Grades for Intervention/QLT Classes	% n	34.12 50	40.17 59	22.35 33	3.36 5	0.00 0	100.00 147

Table 27. Overview of Grades awarded to both Intervention and Comparison Samples in 1999

Discussion and conclusions

This chapter investigated the data collected from the five questionnaires and provided a comparison of student grades from the different classes, at the end of the second education module 'Instructional Design and Strategies for Effective Teaching'.

The t-test analysis of the eleven items for the five questionnaires indicated a trend in responses that reflected positively the use of the Quality Learning Team (QLT) pedagogy. This is corroborated in a series of Bar Charts in Appendix 32 illustrating the results.

The t-tests provide an overwhelmingly positive picture for the use of QLTs as an effective pedagogy for use in the Institute of Education and in the student teachers' schools when they graduated from the Institute of Education.

The analyses in this chapter serve to establish a trend indicating that a large percentage of the student teachers considered that using the pedagogy had assisted them in a number of ways, from getting to know each other better, to gaining confidence, to achieving better module grades, to producing better portfolio reflections - as well as providing them with an effective pedagogy to use in their own classrooms.

The analysis of data provides an indication of the usefulness of QLT pedagogy and the catalyst for further research in this area.

Chapter 6

Qualitative/Process Data Analysis for Students

Introduction

This chapter begins with an analysis of the qualitative data derived from the questionnaires, providing data that corroborates the summative data evaluation in chapter 5. The qualitative/process data collected from the questionnaires is supplemented with qualitative data from lecturer observations and student interviews collected over the six phases of the study. The chapter concludes with an interpretation of the findings.

The sample for this study, students studying for the Certificate in Education Course at the Institute of Education, attended Professional Studies Education Modules over two semesters in the same academic year. The questionnaires were administered to the student cohorts in the academic years 1997-1998 and 1998-1999.

The questionnaires provide both summative and qualitative data regarding student teachers' perceptions of team learning. The data was analysed manually, NUDIST and NVIRO software proving cumbersome in dealing with the array of information, in particular the range that had to be examined. The response categories were determined by the researcher, placing similar data in particular categories, coded, for convenience, from 1 to 9. Placing the data in different categories was straightforward as it was clear from the short sentence responses which category to place them in.

Direct comparisons between pre/post-intervention and end-of-course sample responses was not possible, as the samples were cross-sectional and, therefore, not necessarily comparable. The researcher was interested in general trends rather than in direct comparisons.

Qualitative Data Collected from Questionnaires

The questionnaires were administered in three distinct phases, pre-course, before they began their education modules, mid-course, at the end of the first academic year and end-of-course, at the end of their two-years at the Institute.

Each of the questionnaires provided for qualitative comments from student teachers on three things that they liked *least* and *best* about collaborative or cooperative learning through group or team activities.

(a) *Pre-Intervention Questionnaire* (Table 28. p.110)

The pre-intervention questionnaire was administered to over 400 student teachers, the two intakes for the academic years, 1997-98 and 1998-99, as they began the education modules of the Certificate in Education course. The student teachers had to draw on their personal school experience to address the qualitative questions on the *best* and *least* liked aspects of group work or learning teams. Requiring beginning student teachers to supply opinions on what they might like *best* and *least* about working in a group or learning team was problematic since they may or may not have had any experience of working in a learning group/team. The qualitative responses collected from the questionnaires, however, provided sufficient initial data to illustrate the students' perceptions of learning teams. The questionnaires were administered before any explanation was given regarding learning teams or the use of an innovative pedagogy.

The responses, illustrated in tables 28-32, were, as a whole, positive, an attitude which was further reflected in later discussions and introductory presentations, their apprehension towards certain aspects of the innovation, particularly with regard to assessment, outweighed by the perceived prospect of experiencing a new approach to learning, getting to know their peers and making new friends. The tables represent the responses of individual students across the sub-categories.

Discussions following the pre-intervention questionnaire indicated that 187 (43%) of the student teachers, emerging as they were from the 'traditional' school system in Hong Kong, had not been exposed to collaborative learning and they questioned the validity of an assessment based on such pedagogy, rather than on an individual's performance in the more familiar examination system.

*Table 28 - '**Best**' and '**Least**' liked things about the prospect of working in a learning team*

*Response Category - "**Making Friends**" (Coded '001')*

It is apparent from the 40% response of the 437 respondents that student teachers were looking forward to working in collaboration with their fellow student teachers and hoped to foster friendships, something which appeared, in the subsequent interviews and tutorials, to have been difficult for them in the past where the academic pressures, both in and out of school, had precluded an active social life. Working in groups or teams was seen, by 36% of the students who entered a response in this category, as beneficial to their social and academic life at the Institute of Education.

*Response Category- "**Sharing Workload**" (Coded '002')*

The responses in this category highlighted the 33% of students who responded with concerns about the assessment aspect of collaborative learning: how would individuals within a group be assessed? Of concern also was the perception that the workload might not be equally distributed. Sharing work and grades was a concern receiving a higher percentage (52%) of total respondents than any other area in this category.

*Response Category- "**Sharing Ideas**" (Code '003')*

The comments in this category indicated a general feeling among the respondents that the sharing of ideas was a good thing, that the members of a group or team could benefit and that more ideas would generate still more ideas.

*Response Category – "**Problem Solving**" (Code '004')*

According to the respondents in this category, problems could be more easily solved with effective group dynamics and if approached from different perspectives.

*Response Category – "**Loneliness**" (Code '005')*

'I will not be so lonely' was the response of 44% of those who commented in this category, an indication, corroborated in discussions later, that many student teachers were concerned about the loneliness that they had previously experienced at school. The respondents were also concerned that they would suffer from depression if they were lonely and that this would be reflected in their work.

*Response Category – "**Skills Sharing**" (Code '006')*

A large percentage (42%) of those who commented in this category thought that they would benefit from, and contribute to, the skills within the group.

*Response Category – "**Communication**" (Code '007')*

'A group will help us to communicate' commented 32% of respondents in this category. This opinion, that group or team work would not only ease communication, but would assist individuals to better express themselves and help improve their English skills, was further highlighted in tutorial discussions.

The responses were coded, categorised and identified in the following manner:

Code	Response Category	Specific comments The comments are included for both <i>least and best liked</i> things about working in groups/teams.	Number of respondents	%
001	Making friends <i>All of the responses were in the 'Best Liked' area</i>	+ A good idea to make friends + Look forward to making friends + Good to meet other students + A good opportunity to socialise + Someone to share things with + Someone to trust + Someone to support you in times of trouble	29 21 63 15 26 12 8	40% of 437
002a	Sharing workload <i>'Best Liked' area</i>	+ Remove some pressure having to do a smaller part + Equal responsibility will be a good thing	12 19	30% of 437
002b	Sharing workload <i>'Least Liked' area</i>	- Workload will be harsh so sharing will be good - How to share workload equally - Will all members share work and grades equally	31 25 44	
003	Sharing ideas <i>All of the responses were in the 'Best Liked' area</i>	+ We can share ideas + Much more ideas from more people + Ideas can be discussed + Ideas from everyone can help + More than one idea is good	19 24 5 13 7	16% of 437
004	Problem solving <i>All of the responses were in the 'Best Liked' area</i>	+ Can solve problems more easily + Problems will not be so great + Shared problems are easier + Problems can have different answers and a group will decide best answer	20 3 7 14	10% of 437
005	Loneliness <i>All of the responses were in the 'Best Liked' area</i>	+ I will not be so lonely + Having someone else to talk to is not so lonely + I don't like to work alone + Being alone is not nice + Too much alone is leading to depression	37 26 2 8 11	19% of 437
006	Skills sharing <i>All of the responses were in the 'Best Liked' area</i>	+ Share each others skills + We all have some skill that we can give to the group + We can learn from others skills + I can become more skilled working with others	9 5 18 11	10% of 437
007	Communication <i>All of the responses were in the 'Best Liked' area</i>	+ I can communicate more easily in a group + A group will help us to communicate + Others can help me with my English skills + I can learn how to talk with others	27 32 26 15	23% of 437
008	Time management <i>All of the responses were in the 'Best Liked' area</i>	+ I will have to take care of time management + A group will help me in time management + Group work will rely on good time management	34 45 29	25% of 437
009	Grades <i>All of the responses were in the 'Least Liked' area</i>	- How can grades be allocated fairly - Will I have to share grades with others in group - How can individual members be given their own grade	77 42 68	43% of 437

Table 28. Qualitative Responses for *least* and *best* liked aspects of quality learning teams for Pre-Intervention Questionnaire

Response Category – “Time Management” (Code ‘008’)

All respondents who commented in this category indicated that they would benefit from interaction with group members in a situation which, by its very nature, relies on stricter adherence to time management.

Response Category – “Grades” (Code ‘009’)

The majority (41%) of respondents who commented in this category indicated that they were concerned about the fairness of the allocation of grades for group or team work. The respondents thought that they would find it difficult to accept that individuals could be assessed when working in a group situation.

Summary

Discussions following the pre-intervention questionnaire indicated that over 400 of the student teachers, emerging as they were from the ‘traditional’ school system in Hong Kong, had not been exposed to team learning. The responses to the questionnaire, however, were positive, an attitude which was further reflected in later discussions and introductory presentations, their apprehension towards certain aspects of the innovation, particularly with regard to assessment and the equal distribution of the workload, outweighed by the perceived prospect of experiencing a new approach to learning, getting to know their peers and making new friends. In addition, they regarded the group approach to learning as an opportunity to learn from each other and to share ideas and skills in order to solve problems, reducing both workload and stress for the individual. They also felt that working in a group situation with their peers, rather than in a whole-class situation, would result in an improvement in their communication skills, as well as in their use of English. They perceived time management as an essential element in group dynamics and looked forward, therefore, to improving in this area.

(b) Post-Intervention Questionnaire. (Tables 29, p.113 and 30, p.114)

The post-intervention questionnaire was administered at the end of the second semester, which coincided with the completion of the two education modules. The questionnaire was administered to the same group of student teachers who had completed the pre-intervention questionnaire. The student teachers were then in a position to draw upon their experiences at the Institute of Education to address the qualitative questions on *best* and *least* liked aspects about group work or learning teams. The qualitative responses collected from the questionnaires provided data which illustrated thoughts regarding learning teams and the student teachers’ perceptions of what the learning teams had achieved. It should be noted that response categories in Table 29 and subsequent tables will be different, as different students

were asked to provide free responses in the 'Best' and 'Least Liked' categories in each of the questionnaires. Taking into account the two-year duration of the course, it is to be expected that, with experience, student views would change and be reflected in their responses. The questionnaires were also analysed separately and, indeed, interest centred on the differences therein.

Table 29. - **'BEST'** Liked things about working in a Quality Learning Team

Response Category – "Build up relationship with classmates" (Code '010')

Of those who offered an opinion in this response category, 44% (See shaded area on Table) indicated that they had learned how to co-operate and work with their fellow students, a further 17% indicating that they had got to know their colleagues better by working in Quality Learning Teams. The support offered by the learning team situation was seen as crucial, embracing as it did easier communication with other group members and opportunities to build on personal strengths and increase in self-confidence. It was evident that for the 179 (41%) of the 435 respondents in this category, 'relationships' played an important part in working together in Quality Learning Teams.

Response Category – "Division of workload sharing possible" (Code '011')

The chance to share the workload in the learning team situation was considered by a third of the respondents to be fairer, reducing as it did the pressure on individuals and providing the opportunity to learn and reflect on their work.

Response Category – "Collect and share more creative ideas" (Code '012')

A large percentage (50%) of those who responded in this category, thought that the team situation provided better ideas, while 17% considered it allowed greater opportunity to concentrate on, and analyse, the task in hand.

Response Category – "Solve problems as a team" (Code '013')

This category served to highlight the student teachers' view that team learning was more efficient and effective in its student-centredness and that it helped to improve presentation skills in a good learning environment.

Summary

At this stage in their studies, the students' responses to the pedagogy especially reflected their increasing awareness of the social and collegial benefits of working in teams, as well as the opportunities offered for personal growth.

Although to a lesser extent, the students also recognised the value of sharing the workload and how that sharing reduced stress and increased opportunities for reflection.

Fewer students responded in categories 012 and 013, but those who did pointed out the efficiency and effectiveness of team learning in problem-solving and for sharing creative ideas.

Code	Response Category Things students <i>Liked Best</i> about working in Quality Learning Teams	Specific comments (<i>Liked Best</i>)	Number of respondents	%
010	Build up relationship with classmates	<ul style="list-style-type: none"> + Make friends + Support by team members + Not being lonely + Learn from and take advice from others + Build up leadership abilities + Brings diverse talents together + Know more about team members + Learn strength of self and others and reflect on weaknesses + Learn how to co-operate and communicate + Safer and more relaxed environment working in a team + Builds up self confidence 	14 9 1 13 2 5 30 13 79 2 11	41% of 437
011	Division of workload sharing possible	<ul style="list-style-type: none"> + Allows specialisation + Assist with self-learning + Organisation skills are improved + All members get a little bit then bring together + Sharing workload makes it fair + Workload sharing takes pressure off to reflect on the work 	7 6 2 14 27 31	20% of 437
012	Collect and Share more creative ideas	<ul style="list-style-type: none"> + Better concentration on task + Take a more active role in class + Brings wide range of knowledge together + Analytical skills are developed + Get better ideas from more people 	6 3 2 6 17	8% of 437
013	Solve problems as a team	<ul style="list-style-type: none"> + More efficient and effective for learning + Learn better time-management skills + Presentation skills are improved + Student centred + Good atmosphere and learning environment 	14 1 8 10 5	8% of 437

Table 29. Qualitative Responses for the **best liked** aspects of quality learning teams for Post-Intervention Questionnaire

Table 30 (p.113). – '**LEAST**' liked things about working in teams

Response Category – "**Do a lot of work**" (Code '014')

A total number of 46 students responded to this category, 74% of whom indicated that they found it difficult to distribute the workload evenly. It was also evident that 22% of those 46 considered being in a Quality Learning Team 'a lot of work'.

Response Category – “Time consuming” (Code ‘015’)

The respondents who commented in this category were concerned with the amount of time that working in Quality Learning Teams took. 126 (29%), indicated that it was difficult to arrange team meetings, meetings which took up time that could be spent elsewhere.

Response Category – “Difficult dealing with others” (Code ‘016’)

The students, 25% of 437, indicated that they had experienced some difficulty in dealing with other students when operating in Quality Learning Teams and cited arguments with other team members as the cause. Others found it difficult to co-operate or to make compromises with others and some students claimed that they were being ignored by certain members of their team.

Response Category – “Communication difficulties” (Code ‘017’)

A small group of students (16) indicated that they had experienced difficulties with communication within their groups, although the use of materials in English did not appear to be a major cause of concern.

Code	Response Category Things students <i>Liked Least</i> about working in Quality Learning Teams	Specific comments (<i>Liked Least</i>)	Number of respondents	%
014	Do a lot of work	<ul style="list-style-type: none">- Difficult to distribute workload evenly- Working style is different, difficult to work together- A lot of work	34 2 10	10% of 437
015	Time-consuming	<ul style="list-style-type: none">- Wasting time- Difficult to arrange team meetings- Takes a lot of time	16 74 36	29% of 437
016	Difficult dealing with others	<ul style="list-style-type: none">- Lazy team members- Arguments/conflicts between team members- Difficult to cooperate with others- Different ideas difficult to compromise- Being ignored by others- Working style is different and is difficult to work together- To be too dependent on others	3 62 18 12 12 2 1	25% of 437
017	Communication difficulties	<ul style="list-style-type: none">- Too many notes in English – more Chinese needed- It was difficult to communicate- Too many suggestions- Lack of communication	1 5 5 5	4% of 437

Table 30. Qualitative Responses for *Least liked* aspects of quality learning teams for Post-Intervention Questionnaire

Summary

The largest group, 126 (29%) of students were concerned with the time-consuming aspect of working in teams and the difficulties they encountered with group dynamics seemed to reflect this.

(c). Post-Course Questionnaire. (Table 31, p.116 and 32, p.117)

The post-course intervention questionnaire was administered at the end of the two year Certificate in Education Course. The student teachers had not been subjected to Quality Learning Teams since they had completed the two education modules that formed the basis of the action research for this study the previous year. A small sample, comprising two of the intervention classes used in the first year, was chosen for this post-course questionnaire. The two classes were chosen at random and comprised a different selection of student teachers from those who had studied the education modules together. The responses continued to indicate the positive disposition of student teachers towards Quality Learning Teams, although there was less enthusiasm, due possibly to the fact that the respondents would not have been working together so closely. The return to a more traditional pedagogic style during their second year may have influenced some of the responses.

A higher percentage of the sample, 32 out of 46, who were presented with the questionnaire, responded in the 'Best liked' category, 27 out of 46 responding in the 'Least liked' category.

Table 31 (p.116). - ***'BEST Liked' things about working in a Quality Learning Team***
Response Category – ***"Better Relationship with Classmates"*** (Code '018')

The issue of relationships took precedence in these responses and indicated how the use of Quality Learning Teams facilitated the development of relationships within the teams. The increase in self-confidence, the emergence of leadership qualities and the recognition of the necessity for collaboration and co-operation reflected the personal growth initially anticipated in the intervention by the student teachers.

Response Category – ***"Workload Divided makes Light Work"*** (Code '019')

Respondents continued to agree that a divided workload lessened pressure on individuals and increased productivity, at the same time improving organisation skills and making the best use of a group's talents.

Response Category – ***"Better Chance for Good Ideas"*** (Code '020')

Better analysis, range and quality of ideas were cited by student teachers in this category.

Response Category – ***"Problem Solving Better"*** (Code '021')

A large percentage, 52% (24 student teachers), thought that the Quality Learning Team situation engendered more – and more effective - ideas for solving problems.

Response Category – “Presentation” (Code 022)

Although quoted by 9 or 19% of the 46 respondents in the ‘best liked’ category, the importance of Quality Learning Teams in improving presentation skills received more recognition than in previous questionnaires.

Code	Response Category Things students <i>Liked Best</i> about working in Quality Learning Teams	Specific comments (<i>Liked Best</i>)	Number of respondents	%
018	Better relationship with classmates	+ Friendships long lasting	3	69% of 46
		+ Team assists each other	2	
		+ Learn from others	2	
		+ Leadership abilities tested and improved	7	
		+ Multiple talents used better	1	
		+ Collaboration and cooperation necessary for good communication	6	
		+ Safer working in a team	3	
		+ Self confidence was better	8	
019	Workload divided makes light work	+ Talents used better for small units of work	3	65% of 46
		+ Organisation skills better	6	
		+ Sharing workload is productive	5	
		+ Relief of pressure when sharing Workload	9	
		+ More efficient and effective for learning	3	
		+ Time-management skills well learned in team	4	
020	Better chance for good ideas	+ Good ideas generated by team effort	7	41% of 46
		+ A range of knowledge is useful for the team	3	
		+ Analysis of ideas better	9	
021	Problem solving better	+ Allows better ideas for solving problems	11	24% of 46
022	Presentation	+ Better presentation skills	9	19% of 46

Table 31. Qualitative Responses for the *best liked* aspects of quality learning teams for Post-Course Intervention Questionnaire

Summary

The benefits of Quality Learning Teams still continued to be linked to ‘relationships’, with a greater emphasis, post-course, on increased self-confidence and leadership abilities, confirming the personal growth anticipated by the students in the post-intervention responses.

The division of the workload was still regarded as a valuable aspect of Quality Learning Teams, resulting as it did in a reduction of stress and an increase in ideas and strategies for problem-solving.

Post-course respondents, however, additionally commented on an improvement in their organisation and presentation skills as a result of the intervention.

Table 32 (p.117). - ***'LEAST Liked'*** things about working in a Quality Learning Team

Response Category – ***"Very Big Workload"*** (Code '023')

The majority of students in this category (63%) found that sharing the workload evenly was difficult and that the overall workload was high.

Response Category – ***"Large Amount of Time"*** (Code '024')

Eighteen of the 46 respondents in this category had found working in a team situation counter-productive, with the difficulties of arranging and conducting meetings very time-consuming.

Code	Response Category Things students <i>Liked Least</i> about working in Quality Learning Teams	Specific comments (<i>Liked Least</i>)	Number of respondents	%
023	Very big workload	- A large amount of work to do for all team	5	59% of 46
		- Working together with different styles is very difficult	3	
		- Trying to give work evenly was difficult	17	
		- We seemed to be working all the time	2	
024	Large amount of time	- We always waste time on arranging meetings	10	52% of 46
		- We wasted a lot of time arguing and discussing	8	
		- Working as a team takes much time	4	
		- There was never enough time available	2	
025	Relationships often bad	- Team members argued a lot. Difficult to cooperate with others	3	41% of 46
		- Some members were too dependent	1	
		- Sometimes there was conflict between members	3	
		- Agreeing when there were so many different ideas was difficult	5	
		- Other team members were ignored by others	3	
		- Working together with so many different learning styles was difficult	2	
		- Team members were sometimes lazy	2	
026	Poor communication	- Communication was sometimes very poor between members	1	17% of 46
		- There were too many members making too many suggestions	3	
		- Communicate between team members was difficult	2	
		- Chinese lesson notes would be good	1	

Table 32. Qualitative Responses for ***Least liked*** aspects of quality learning teams for Post Course Intervention Questionnaire

Response Category – ***"Relationships often bad"*** (Code '025')

The student teachers (41%) who commented in this category had experienced difficulty reconciling differences of opinion and in making decisions and approaches to work.

Response Category – ***"Poor Communication"*** (Code '026')

Although this category attracted the smallest number of respondents (17%), concerns were expressed about the inability of group members to listen to each other and to communicate their ideas.

Summary

The major disadvantages of using Quality Learning Teams continued, as in the post-intervention responses, to be centred on the amount of time involved and poor group dynamics. In addition, 18% of those post-course respondents who responded in this category emphasised that there was too much work to do as a whole and that communications within the group were poor.

Summary of qualitative comments from the questionnaires

The prevailing attitude towards Quality Learning Teams in all three questionnaires was positive, with the two categories concerning 'relationships' and 'Workload' maintaining the greatest number of responses throughout.

▪ Relationships

On all three occasions when the questionnaires were administered, the student teachers' opinions about the effects on relationships took precedence. From initially regarding the innovation of working in teams as a refreshing change from the experiences of their schooldays which would enable them to make friends, avoid loneliness and receive support from their team members, the responses progressed further into the area of personal and professional growth.

The respondents in the post-intervention and post-course questionnaires, while still recognising the social aspects of working in teams and the effect on their own performance, began to see the emergence of skills which were not only of benefit in their own learning situation, but which could be transferred to their classrooms when they became teachers themselves. The demands made on them in their Quality Learning teams to cooperate and collaborate with each other in order to get the job done resulted, according to the responses, in increases in self-confidence and esteem and the development of leadership skills, personal growth which many of the students had hoped for at the outset of the intervention.

▪ Workload

The responses of the pre-intervention questionnaire reflected the apprehension felt by many of the student teachers about their new learning situation, in terms of the amount of work and their ability to cope with the demands of its content. This apprehension

was offset, to a certain extent, by the enthusiasm with which they approached not only the new pedagogy, but also their new roles as student teachers.

As the students settled into these new roles, the benefits of Quality Learning Teams, with regard to tackling their academic responsibilities, began to emerge. Their responses to the post-intervention and post-course questionnaires clearly indicate how working in teams helped to spread the workload and reduce stress, providing time for reflection and opportunities to share ideas and strategies for problem-solving.

In both the above categories, the use of Quality Learning Teams had provided scaffolding to support both the professional and personal growth of the student teachers.

▪ **Issues of Concern**

It is interesting to note that the concerns expressed by the student teachers with regard to assessment in the pre-intervention questionnaire were not repeated in the subsequent questionnaires. This was largely due to the use of portfolio assessment to which they were introduced at the beginning of the intervention. Although this assessment tool was new to all of the students, its effectiveness was soon apparent and served to allay their fears about the evaluation of individuals in group situations.

A major concern, however, expressed by both the post-intervention and post-course respondents, was the question of time. Differences in timetabling and the necessity to complete most of their team tasks in their own time, caused conflict and the dynamics of some groups suffered. However, the time-consuming element of the Quality Learning Team strategy must be examined against the background of a curriculum which, although under review, is still overcrowded, and the traditional approach to teacher education that the students were being subjected to outside of the education modules during the intervention period.

Qualitative Data collected by the teaching team from Classroom Observations of Student Teachers operating in their Quality Learning Teams *(September – December 1997)*

Classroom observation formed an important interpretative part of the study as the teaching team shared observations which assisted in guiding all intervention classes using the Quality Learning Team pedagogy. The teaching team were encouraged to record observations during and immediately after their classes in reflective statements or a working diary. The observations were discussed by teaching team members in

their weekly meetings. The following data represents the observations and working diaries of the six teaching team members with comments, both positive and negative, on the use of Quality Learning Teams.

The education module, *Classroom Teaching Skills*, began in September 1997 for Cohort 1 and September 1998 for Cohort 2, for all groups, both intervention and non-intervention. In 1997, four of the intervention classes were held on Tuesdays, the remaining two on Fridays. In 1998, three intervention classes were held on Tuesdays and one intervention class on Thursdays. The non-intervention class for Cohort 2, in September 1998, was held on a Thursday. Teaching team meetings usually took place on Thursdays.

September 23rd and 26th 1997:

Introductory sessions for the entire cohort of student teachers took place and the pre-intervention questionnaire was administered to ascertain the students' perceptions of group work and working in learning teams.

September 30th and 3rd October 1997:

Classes met for the second time and the learning teams were formed. Students were instructed to form their own teams according to the following:

- each team had to have 4/5 members
- a team could be single-sex or mixed
- members could have same or different electives
- members could know each other or not

Lecturer #3 reported that four of his students were reluctant to become involved in any team and Lecturer #5 reported that two of her class were left out of the selection process, not knowing which team to join or who to approach to join a team. Assistance was given by the lecturers in integrating these students into teams.

Lecturers #1 and #6 appointed the teams themselves according to electives.

The teams were then given their first collaborative task, a group presentation outlining their opinions about good and bad teaching, based on their own experiences.

All lecturers on the teaching team for the intervention groups reported excitement amongst student teachers as they formed their learning teams and began to prepare their first team presentation. Reluctance was apparent in 19 members of the student

body, but the remainder were eager to be working with others and to have the opportunity to form friendships.

7th and 10th October 1997:

Teams were requested to elect team leaders and scribes. Students were informed that reflective statements from learning team meetings would form part of each student's individual portfolio assessment for the module. (See Appendix - on portfolio assessment)

By the third week, all the student teachers had completed and submitted video presentations in which they were asked to talk about themselves, their families and interests and to explain why they wanted to become teachers. The videos provided valuable personal data, including attitudes and feelings.

The initial student video presentations, comprising personal introductions of students from the six intervention classes, were viewed by the teaching team members, each taking responsibility for his/her own class and providing written feedback. The whole teaching team reported on the openness of the presentations, many of which revealed how some student teachers regarded their situation as 'ending up' at the Institute of Education. The first video presentation provided additional and corroborative data for the student demographic data collection. It also provided training in the use of technology and in providing discussion in class on presentation strategies for classroom teaching. The large number of videos made detailed analysis impossible, although written feedback was provided for each student. The videos were used by the teaching team as part of the professional process of review and evaluation.

Many students (41% of those participating in the study) expressed a feeling of failure in accepting a place at the Institute of Education when they would have preferred to go to university. Students in this category (28%) indicated that they were in the process of re-sitting their 'A' level examinations and, indeed, three students did withdraw from their teacher education studies to take up places at university as a result of their improved 'A' level results.

The videos provided evidence that sixty eight percent of the new student teachers were suffering from low self-esteem, feeling guilty for having let themselves, their teachers and their families down with their low 'A' level results. They also demonstrated, however, excitement at the prospect of making new friends and, though apprehensive, an eagerness to work in Quality Learning Teams.



The videos provided a source for student-lecturer discussions in tutorials and communication by e-mail.

Observations during the first semester (September – December 1997)

The six lecturers working with the intervention classes reported that high levels of commitment, in terms of time and effort, were needed in building relationships between students and lecturers and within teams. Much of this effort was directed to boosting student self-confidence and to encouraging them to participate in team discussions.

14th and 17th October 1997

The learning teams had, by now, begun to operate as collaborative units, Lecturers #4 and #5 particularly observing that the learning teams in their classes had begun to 'gel' in the way the student teachers approached their team tasks and allocated work within the team. The discussions were in both Chinese and English and team members assisted each other by using both languages which enabled all team members to comprehend the full meaning of the discussion points of their task.

21st October 1997

Lecturer #2 observed that her class had learned a great deal from each other as each team presented their materials to their classmates. The presentations were video taped and the learning teams were able to evaluate the effectiveness of their presentations to their classmates. The video tapes were also used by lecturers to demonstrate the progress being made in their classes by the learning teams and how other learning teams were operating.

4th and 7th November 1997

By the seventh week Lecturers #1 and #4 reported that they had had to intervene to resolve conflicts which had arisen with certain learning teams as they tried to arrange out-of-class meetings to prepare their group presentations.

11th and 14th November 1997

The lecturers were aware, at this point, that the learning team strategy was demanding a great deal of time and effort from their students. They had noted, however, that despite the fact that members of a team might have different electives and schedules, they were getting together to discuss and complete their allotted team tasks.

18th and 21st November 1997

Week Nine was reported by all teaching team members as one where there were no apparent learning team difficulties, a time also when each of the six classes' learning

teams were working together as Quality Learning Teams. The work being produced was generally of high quality with an excellent understanding of the educational concepts being studied.

25th and 28th November 1997

All teaching team members reported favourably on the progress of the learning teams in their classes as evidenced by the high quality of presentations and the obvious understanding of the educational concepts being studied therein. The progress of individual students was demonstrated in the quality of their reflective statements.

2nd and 5th December 1997

Lecturers #3, #4 and #2 reported the more relaxed atmosphere in their classrooms and evidence of growing confidence and team loyalty when defending the materials they were presenting. It was obvious, according to the lecturers, that the teams had accepted the challenges presented in their tasks and were 'having fun'.

12th December 1997

Lecturer #6 reported her observations for week twelve, the last week in the first semester, of the 'togetherness' and team spirit which she cited as being very high in her class. This was evident in the confidence and determination demonstrated in excellent co-operative and collaborative team efforts in a class debate on one of the educational issues they were studying.

At the end of the first semester, in December 1997, the final teaching team meeting concluded that the Quality Learning Team pedagogy was a successful innovation in terms of student grades, the quality of individual portfolios, the increasing confidence exhibited by the majority of the student teachers and in terms of student understanding of the educational concepts contained in the education module being studied.

Observations during the second semester (January – July 1998)

January 1998 saw the beginning of the second semester and the introduction of the second education module, '*Instructional design and Strategies for Effective Teaching*'. The students continued in the same learning teams as in the first semester, with the exception of six students from three different classes who requested a change of team so that they could work with friends, rather than their initially chosen teams.

The second semester consisted of thirteen weeks, from early January to the beginning of July, with two main breaks from study for the Chinese New Year holiday and an eight week teaching practice. After teaching practice the semester continued for six weeks until the end of the academic year at the beginning of July.

Three class meetings took place before the two-week Chinese New Year holiday.

Week one: 6th – 9th January 1998

Lecturers #4 and #6 reported that, with three exceptions, the majority of their students were very happy to be back with their teams. Those disaffected students were, in the main, male and though, initially, they were unco-operative and displayed a lack of self-esteem, they realised they had no choice and eventually settled into their various teams.

Week two: 13th and 16th January 1998

In Week two, the teaching team decided to set a deadline for presentations which gave the students less time than usual to prepare. However, Lecturers #1, #2, #4 and #5 observed that the teams in their classes worked quickly and efficiently, the effectiveness of team leaders ensuring that the presentations were ready in time.

Week three: 20th and 23rd January 1998

Week three brought comment from Lecturer #1 who had observed some conflict in his class where three teams were finding it difficult to meet and others experiencing conflict in discussions, with individuals claiming that they were not being allowed to express their ideas. Lecturer #3 observed similar conflict in his class, with two individuals trying to dominate proceedings. Similar observations were made by other lecturers, although the problems did not persist and were dealt with in tutorials. These problems occurred immediately before Chinese New Year and were attributed to pre-holiday restlessness by the lecturers involved.

Week four: 10th and 13th February 1998

Four weeks before the student teachers were due to go out on their first teaching practice, Lecturers #2, #5 and #6 reported on how relationships had built up between team members and how the commitment and positive attitude in each of these three classes had produced work of high quality.

Week five: 17th and 20th February 1998

Observations in Week five focused on the team presentations on questioning techniques in preparation for their forthcoming teaching practice, something about which all the student teachers were very apprehensive. Lecturer #1 commented that even the smallest details were being addressed and the results were pieces of work of the highest quality and an excellent standard of presentation.

Week six: 24th and 27th February 1998

Lecturer #3 reported that one learning team in particular seemed to be working below the level of the rest of the teams in his class. Several (3) of this team's members were those who considered the Institute of Education as a poor alternative to university. These members tended to be unco-operative and resented having to rely on others in a learning team situation.

Week seven: 3rd and 6th March 1998

The teaching team observed how the imminence of teaching practice dominated class discussions and how the students were nervous, but happy to be able to share their feelings of apprehension with their team members. The lecturers also reported on the satisfactory progress their teams were making, with evidence of deep learning taking place in the reflective statements in the students' portfolios. The support given by the teams to those of their members who struggled with the English learning materials was also commented upon.

Week eight: 19th and 22nd May 1998

The first week back from their teaching practice saw a very positive return by the students to their learning teams. Lecturer #3 observed contented and confident learning teams in his teaching practice classroom which, he noted, made classroom activities and a student-centred approach to learning a pleasure to facilitate. Lecturer #1 and #5 reported the need for a settling-in period for some of the QLTs in their classrooms

Week nine: 26th and 29th May 1998

The QLTs presented their collaborative views on classroom management issues which emerged during their teaching practice. The teaching team reported that their classes were animated and discussions culminated in 'pooled' lists of their positive and negative experiences for a whole-class discussion. Lecturers #2, #3 and #6 reported some initial reluctance on the part of eight students to discuss their personal negative experiences, feeling they might 'lose face' in the subsequent class discussion.

However, when they were assured that the contributions of the team would be anonymous, they were happy to share their experiences with their team members. The use of the group situation provided a safety-zone for sharing and discussion and a valuable starting-point for the class' evaluation of their teaching practice experiences.

Week ten: 2nd and 5th June 1998

The students' evaluation of teaching practice continued and discussion centred upon those student teachers who had experienced 'inclusive' classrooms in which students with learning difficulties were integrated. Lecturers #5 and #6 reported that members of their teams had experienced some success in applying the QLT strategy in such classrooms because it had helped all students to feel part of the class and helped to provide for differentiation.

Week eleven: 9th and 12th June 1998

QLTs reported by teaching team as working very well, with over ninety percent (in the six classes there were 7 students experiencing social difficulties) of student teachers on-task and interested in their team task and in collaborating to complete their presentations.

Week twelve: 16th and 19th June 1998

Student teachers worked with their QLT members to ensure that their portfolios were assembled in a logical and sequential way, with reflections clearly identified and dated so that individual views and argument were represented. QLTs made a final presentation of their thoughts and views on that semester's education module and made suggestions about what might be improved or changed. The teaching team reported that all QLTs worked hard and made some positive suggestions.

Week thirteen: 23rd and 26th June 1998

The last week of the semester was reserved for Individual student teachers to present their portfolios of the education module. Although arduous, the ten-minute presentation in front of an evaluating panel of their peers was regarded by the student teachers as a very positive and valuable experience. The evaluation panels were changed regularly so that all student teachers had an opportunity to evaluate others in the class. The teaching team reported that the presentations provided feedback of what had been learned, indicating a deep understanding of the issues in the module.

The final weeks of the semester were reported in the weekly teaching team meetings as running normally and well, the student teachers taking more naturally to their Quality

Learning Team tasks which were completed within the agreed timeframe and well presented.

Teaching Team

Armed with the experience of the first trial of QLT at the Institute of Education, the teaching team met before the 1998 intake to discuss the need for any changes to the programme. The major concern discussed at this initial meeting was the question of time. It was felt that the students had been placed under great pressure to operate as teams to fulfil tasks in their own time and it was felt that a decrease in the number of required team presentations would alleviate the pressure.

A record of the observations and comments concerning the 1998-1999 cohort can be seen in Appendix 30.

Despite the criticism regarding time, the teaching team agreed that the advantages of using Quality Learning Teams far outweighed the disadvantages and that the module grades/results of the students spoke for themselves, the intervention classes' results being consistently better than those of the comparison classes. See Appendices 29 and 30.

Teaching Practice Observations

The teaching team was responsible for the general observation element of teaching practice for the Certificate in Education Course student teachers and had ample opportunity to observe their student teachers in the classroom. The teaching practice students allocated to each teaching team member were also a mixed group, some from QLT intervention classes and some from the comparison or non-intervention classes and this gave the team members the opportunity to compare the students' strategies. It was evident that many of the intervention students had tried to implement QLT in their teaching practice classrooms.

However, some found the difficulties encountered in the management of their often large classes precluded the use of other than 'traditional' pedagogy. Others were actively discouraged from using QLTs, the principals and teachers of the schools they found themselves in deeming the discussion and debate which would ensue disruptive and time-wasting. A noisy classroom was/is deemed by many educators in Hong Kong to be an out-of-control classroom and, therefore, a negative reflection on both teacher and school administration. The student teachers were also nervous and not in a position to challenge the wishes of principals and teachers at such schools. Some

principals encouraged their teachers to try different innovations in their classrooms and this attitude allowed student teachers the freedom to experiment with QLTs in their classrooms.

However, all the students reported that they had at least tried to implement QLTs and that they would try again on their subsequent teaching practices. They felt, too, that their own experiences at the Institute had enabled them to work effectively with their fellow student teachers, sharing ideas and supporting each other throughout their practice.

Approximately 60% of the students reported that they had been able to implement QLTs in their classrooms and that their students had thoroughly enjoyed the experience. This had bolstered the student teachers' confidence and had been reflected in their final, highly satisfactory, teaching practice grade, based on the evaluations of intervention and non-intervention supervisors.

Evaluation of Qualitative Data from Student Teacher and Graduate Interviews

(a) Pre - Intervention Student Interviews (September 1997 and 1998)

Twenty, randomly chosen student teachers (from computer-selected numbers corresponding to class registers), were invited, in each of the two cohorts, to participate in a first interview during the second week of their education module. The interview schedule and open-ended-questions followed a similar line of enquiry as the pre-intervention questionnaire, providing responses that confirmed the qualitative data shown in Tables 31 (p.116), and 32 (p.117).

It was the intention of the first interview to collect data consisting of the views of first-year students about their reasons for attending the teacher education course and their thoughts about learning collaboratively as a part of a learning team.

Asked why they chose the Certificate in Education Course offered by The Hong Kong Institute of Education, the following opinions were offered:

No choice. Poor Hong Kong Advanced Level (HKALE) results don't allow a university place. Need security for the future and parents advised. (Interviewee #1: 26-09-1997).

Don't want to attend HKIEd. No university place. Poor HKALE results. This (HKIEd Course) will give chance to attend university later. (Interviewee #2: 26-09-1997).

Relative is a teacher and advised to accept HKIEd placement. Anyway I have poor HKALE results. (Interviewee #3: 26-09-1997).

Didn't know what else to do. Did not want to go to work yet. Why not come here (HKIEd) the future is uncertain and a teacher job is quite secure and quite well paid. (Interviewee #4: 26-09-1998).

Security for the family. Teaching is a secure and well paid job. It is civil service job – my father works for government and he advised me. (Interviewee #5: 26-09-1987)

Tried other job in Bank and didn't like it so I came here. More secure. I like to teach kids and make Hong Kong future better. (Interviewee #6: 26-09-1998.)

Finished my degree and decided that I would like to teach so I came here (HKIEd). (Interviewee #7: 26-09-1998).

Entry to the Certificate in Education Course was seen by forty-one percent of intervention student teachers as either a means-to-an-end or as the only alternative open to them.

The interviewees were asked to elaborate on the responses given in the questionnaires (Table 28, p.110). The interviewees also talked of their school experience and how preconceptions of teaching and learning were influenced by their own teachers.

When prompted on teaching methods and learning teams, the interviewees' opinions were similar: that teaching methods should be varied to create a better learning environment to promote motivation, and not be bound by traditional teaching, but be open to innovation. Two illustrations of these views follow:

I think that teachers should not stick to the same boring method; they should make changes to suit different situations in the classroom. Different teachers have different ways of teaching and have different styles. It is important that each teacher is allowed to make the choice of which method or style is best for the class. (Interviewee #12: 26-09-1997).

Some pupils need to be more motivated than others. This requires the teacher to have different lesson routines because pupils are different and need teachers to adopt different ways to motivate pupils. Using different strategies is better for motivating pupils. (Interviewees #17 and #3. 26-09-1997).

Asked about working in learning teams, nine of the interviewees described their own school experience of working in groups in lessons which they had often found stimulating. The teaching strategies used by their teachers included pair work, especially in the language classroom, and they agreed that working in groups was beneficial for pupil involvement and participation and to enable pupils to sharpen their communication skills.

I think it is difficult for pupils to really learn or practice something if they do not work in groups. In my school classroom discipline was a bit of a problem but many pupils enjoyed and learned a lot by working in groups. (Interviewees # 19, #8 and #15.:” 26-09-1997).

Quotes from students who had never experienced co-operative or team learning

When I was a student the teachers at my secondary school did not try to use groups or learning teams, I think because the school was a band 5 school and the teachers were afraid to let us do work together in case we were naughty. (Interviewee #13: 26-09-97).

My school experience was boring as the teachers just used traditional teaching methods and did not try anything that would make it more interesting for the pupils. (Interviewee # 5, 22-06-98).

The teachers at my school were not interested in our learning and did not try any interesting ways of teaching. We behaved very badly for these teachers. (Interviewee # 11, #15, 22-06-98).

Summary

It was clear that the student teachers had some knowledge of the teaching strategies used by their teachers, based on their previous school experience, but knowledge of such strategies was, as expected, superficial. When asked about their views on learning in groups, eighty-five percent of the sample answered that they had indeed worked in pairs and groups. Group work had been enjoyable but, often regarded as an opportunity to chat, not as effective as paired work. Some of the student teachers had never experienced learning teams at all. It was evident that while many schools did make an attempt to utilise group work, it was not used consistently and tended to be regarded as an occasional platform for competition or general discussion, rather than as a learning strategy. It was evident that eighty percent of the student teachers thought that working together in a learning team would be an exciting and different part of their education course.

(b) Post Intervention Student Interviews (July 1998 and July 1999)

The interviews were to gain an insight, immediately following the completion of the education modules, into student teachers' thoughts about using the Quality learning Team pedagogy. The student respondents were selected, using computer-selected random numbers corresponding to the class register. The interview schedule used the questionnaire statements with prompts to elicit additional views of certain aspects of the teaching and learning strategies used in their classroom during the education module. (Tables 29, p.113 and 30, p.114).

The interviews took place after the student teachers had completed their first teaching practice and so gave a view of the use of Quality Learning Teams from their

experience of the education modules and from their own attempts at using learning teams in their classrooms in the teaching practice school.

Asked how they felt about working in learning teams, the interviewees' views were all positive except for one (Interviewee #27) who definitely did not like the practice and determined that he would not be using learning teams in his classroom in the future.

I did not like working in these learning teams because the dominant person always put her views forward and my opinions were not considered at all. It was embarrassing to be ignored by this girl and my suggestions are as good as those of other members of the group. (Interviewee #27: 29-06-1998)

Clearly this student had problems with integrating with his colleagues, which was surprising as he had stayed in the same learning team for two semesters.

The interviewees' opinions corroborated the qualitative responses that were indicated in Questionnaires previously completed, shown in tables 29 (p.112) and 30 (p.113).

It was very clear from the interviews that eighty percent of the student teachers agreed that using Quality Learning Teams was a good experience, allowing them to take responsibility for their own and their team's learning. This was demonstrated in part with the comments made by Interviewee #2, #7, #10 and #15 (29-06-1998):

Using QLT gave me responsibility to learn for myself and to help my team members. We had to do the work ourselves to gain deep understanding. It was enjoyable to work with colleagues and to make friends which I still have. We did a good job when presenting our work to the class.

It was evident also that seventy percent of the student teachers interviewed found that they could benefit from the variety of different ideas contributed by other team members, helping them to arrive at a more considered conclusion about the various materials being studied.

All QLT members brought good ideas together for sharing. This made us work very hard on deciding the best solution and understanding the materials that we had to present. (Interviewee #1, #12, #21 and #30: 29/30-06-1998)

Two of the student teachers, however, were distracted by all the different ideas:

There were so many ideas that it was very difficult to make a decision for the best one. This situation led the QLT to argue and waste much time. (Interviewee # 5, #13: 29-06-1998)

When asked about their English improving as a result of working in QLTs many answered in the affirmative. This was interesting in the light of the uncertainties expressed in the summative data evaluation. The improvement could be attributed to

the student teachers having to use English learning materials and having to present their work in English and to the fact that the strategy demanded discussion.

My English has definitely improved having had to work in a QLT. I had to do a lot of practice in English speaking because the reading materials were in English and it forced us all to use English. I practiced with my lecturer as often as I could. (Interviewee #17, #22, #25 and #28: 30-06-1998).

Responding to the question of whether the use of Quality Learning Teams helped to build the students' confidence, four of the student teachers offered the following view:

Yes I have more confidence now as I have had to speak out in my QLT and in the team presentation. My confidence is greater than it was because my opinion has some value in my QLT. (Interviewee #4, #9, #23 and #29: 30-06-1998 and 02-07-1998)

Strong feelings were expressed about the issue of self-confidence, especially by female students who were very self-assured as they responded to the interview questions. The teaching team agreed with this assessment, the students having displayed high levels of confidence in their Quality Learning teams and when presenting in front of the class.

Asked to comment on whether the students would make use of a similar pedagogy in their future teaching sixty-five percent responded positively, although five had reservations:

Using QLTs has opened my eyes to an approach to student-centred learning that is exciting and creates much interest. I would certainly like to use learning teams in my school when I am a teacher and will try to introduce this strategy. (Interviewee #3, #8, #19, #24 and #26: 29/30-06-1998 and 02-07-1998)

My teaching practice school did not like teachers doing too much group work so I think I will have problems if I introduce it to my school. It takes too much work to organise and plan and takes a large amount of time. (Interviewee # 6, #20: 30-06-1998 and 02-07-1998).

Summary

The major finding from the post-intervention interviews was that eighty-four percent of student teachers felt that they had gained substantially from working in Quality Learning Teams. Of the students interviewed ninety percent stressed that they would try using learning teams in their schools, but sixty percent were of the opinion that the schools would not welcome something that required what might be regarded as a radical innovation. Most principals, said the respondents, want new teachers to fit in with what goes on in their schools and for the new ones to adapt to the school's ways of doing things.

(c) End-of-Course Student Interviews (July 1999 and July 2000)

The end-of-course interviews for the Intervention classes took place as the student teachers were completing their education course at the Institute of Education in July 1999. The student respondents were selected using computer-generated random numbers corresponding to the class register. The purpose was to assess the student teachers' perceptions of the use of Quality Learning Teams one year after they last used Quality Learning Teams, a year in which they had been attending traditional classes at the Institute of Education. Apart from the use of group work, though not to the same extent, in other modules, they had not used QLT pedagogy for the whole of the second year of their study and the researcher wanted to compare their opinions.

About twenty-five percent of those who completed the end-of-course intervention questionnaire were invited to take part in the interview.

The summative data in Chapter 5 evaluated the responses to the statements on the questionnaires which were substantiated in the pre-intervention and post-intervention interviews, reflecting a positive attitude towards Quality Learning Teams. It can be seen from the following statement, however, that there was some uncertainty in the students' attitudes towards Quality Learning Teams after their year-long absence.

I think that using Quality Learning Teams was an excellent experience and I did learn a lot in the first year about the education theory subjects and about my friends. No other module since then has used QLT and from my Teaching practice school experiences over two years I had no chance to use QLT. (Interviewee #10 and #6: 12-07-1999)

I enjoyed being in QLT environment, it was hard work but we all learned a lot and we understood the theories that we presented. We have not used QLT pedagogy in the past year and I could not use it at my teaching practice schools – the classes were too big, the class teacher did not want me to use learning teams as this would make her look bad. (Interviewee #5: 12-07-1999)

The issue of whether they would make use of a QLT strategy provided responses that varied, thirty percent of the respondents of the opinion that they would definitely try to use QLT, even though principals might be opposed to this type of student-centred pedagogy in their schools. When asked about their reflective skills and whether their reflective skills had improved as a result of using QLT pedagogy, the student teachers commented:

We have been doing a lot of reflections in these two years. The QLT helped me to think and to write so I suppose my reflection skills were improved. However, I cannot say now that QLT really did help me to improve my reflectivity, I have done it so much I just don't know – maybe! (Interviewee #2 and #9: 13-07-1999)

All of the teachers had good memories of those days studying the two education modules, especially of the QLT experience. One graduate reported;

I remember those fun and difficult times working in our learning team. We had lots of argument and disagreement but we always arrived at an answer and a good understanding of the materials that we were to learn. (Graduate #3: 24-07-2000)

Asked if they had used or tried to use a learning team strategy themselves approximately 60% of the graduate interviewees responded positively that they had either used or attempted to use the pedagogy. Many (40%) of those graduates also pointed out that they found it difficult to use QLT effectively in a large class: there was always a lot of noise which was interpreted as the new teacher's lack of control by other teachers and the senior management. Eight of those interviewed said that they had tried to use learning teams but had been warned not to by those in more senior positions. One graduate had not tried to use learning teams as it was too difficult to plan and supervise. Some views follow:

The Institute is different to school and it was possible to use QLT strategy, but in the schools in HK it is very different and we have to do traditional teaching. (Graduate #3: 24-07-2000)

My school has to be quiet and any class making noise causes trouble for the teacher. I tried using learning teams but the students enjoyed it too much and were noisy so I stopped using team work. (Graduate # 8: 25-07-2000)

My class was quite small (34 pupils) so I used Learning teams and they enjoyed it very much. They also learned very quickly and helped each other. The students remembered things that they did as a learning team and understood my lesson better than normal teaching. (Graduate #1 and #4: 26-07-2000)

The graduates indicated that working in QLTs had been useful and productive while they studying the education modules. Seven of the graduates interviewed suggested that they had learned more by working in QLT because it was a challenge and they could share ideas and solutions. They agreed that they had learned more about their colleagues by working in QLT and that this had built friendships which were still strong, the former team members meeting regularly for social gatherings. Ninety percent of the graduates agreed that they had improved their presentation skills as a result of working in QLT. The sense of responsibility each member had felt and the sharing of ideas had contributed to improve their presentations. Two definitely thought that the team situation had forced them to reflect more and to consider things from different perspectives. Others were less sure, but thought that the arguments that had ensued in their teams had certainly given them food for thought!

Working so close with four other students made us aware of what we needed to do for our presentations. We had to justify our suggestions to the team and this

made us think about our contribution. We had to think carefully about our ideas and how to explain them to the team. (Graduate #5: 27-07-2000)

Working in QLT taught me to think carefully, and things that I do in my classroom today I consider carefully – I think I got that from my experience in my QLT. I have also learned from the QLT that my teaching colleagues can have good ideas, so I often share with them and we often exchange ideas for teaching. (Graduate #7: 27-07-2000)

Asked if their education module grades were better as a result of working in QLT, eight of the graduates thought that this was true, because *"I was more serious about doing the work and showing my team members that I could do it"* (graduate #2: 26-07-2000) and this sentiment was expressed by most of the graduates. They recognised how QLT provided for student-centred learning.

The graduates thought that their English had also improved due to the collaborative nature of QLT in which they had used English learning materials and presented their work in English to an English-speaking lecturer.

While seven of the graduates interviewed had either tried learning team strategies in their classrooms or had had some success in using it, most agreed that, while they found learning teams a powerful way for students to learn, most of their schools discouraged them from using such innovations.

The graduates were all female and they all agreed that they had gained in self-confidence through using QLTs because they had had responsibilities and, arguing their points of view, they had realised that their opinions were as valid as those of their team members. Their memories of what they liked best and least revolved around two things: they made friends and managed to build relationships with other students and they had to devote a lot of time to getting the QLT to work efficiently and effectively. They all agreed that in retrospect they had enjoyed the experience and had learned a great deal from it.

Each of these interviews provided data that was almost identical. The main difference was that those graduates who had been teaching for two years in their schools said that they felt more confident about using QLTs in their classrooms - pressure had been taken off them a little and they felt that they could experiment with learning teams.

I have now completed two years at my school and I find that I have more confidence. I have been experimenting with using learning teams in my classroom this semester and I can manage the class better now. The class are more quiet and the principal does not notice. He likes the way my students are learning. Yes learning teams are working for me and my students are enjoying learning these days. (Graduate #2: 21-07-2001)

The second year of teaching has been stressful also but I have managed my class better and have used learning teams for some of my lessons. The students enjoy working together and don't fight any more but discuss until they have an agreed answer. But it does take a lot of organising for me and I have to be aware at all times of what the learning teams are doing. (Graduate #7: 21-07-2001)

My students know me better now and I can manage them in a more friendly way so that I have used learning teams more during this semester. I find that I have to be well planned when I use learning teams but the students really like working together and they seem to get a better understanding from working together. My experience of QLT at the Institute has helped me to try this different way of learning. (Graduate #5: 21-07-2001)

Summary

Interviews of graduates after one and two years of teaching showed that, during the first year of teaching, they felt intimidated and were not encouraged to try different or innovative ways of teaching or to create a student-centred learning environment. The graduates reported that when they had settled into their teaching and their schools and demonstrated that they were more in control, they had successfully introduced learning teams into their classrooms or were trying to do so. All found that using the learning team pedagogy required greater planning, supervision and patience as their students learned collaboratively. Six of the teachers suggested that their schools were beginning to embrace some of the current education reforms and were making inroads to change and that their efforts with QLTs were helping to counteract the resistance of some principals and senior teachers to anything other than traditional teaching.

Chapter 7

Qualitative Data Analysis from Interviews of the Teaching Team

The purpose of this chapter is to analyse and compare similarities between the qualitative student data from Chapter 6 with the qualitative data collected from the teaching team at the completion of the two education modules.

The teaching team of six lecturers, including the researcher, attended weekly teaching team meetings throughout the period of the study and were made aware of the experiences of other teaching team members in implementing QLT. The interviews took place in July of 1998 and 1999 when teaching on the education modules was completed and module grades had been submitted. Interview lengths varied but were approximately forty minutes for each lecturer. The interviews were conducted by the researcher based on an interview schedule that allowed for open-ended responses and discussion. The information resulting from the interviews was recorded and categorised, and is illustrated in Table 33 (p.142). The two lecturers who conducted the non-intervention classes were also interviewed in order to determine their views on co-operative learning and their use of group work/learning groups or teams in their classes. The interview schedule was designed to reflect the non-intervention class use of learning teams or group work.

(a) Responses to questions from the interview schedule.

Question 1.

Having used the QLT pedagogy during the past year how useful do you think the strategy was for teaching the education modules?

Each of the teaching team members responded to this question positively, as illustrated in Table 33 (p.142). They agreed that the use of QLT had helped the students to understand the module materials. The students in QLTs formed cohesive groups, adopted a more mature attitude to their studies more quickly and, consequently, formed a better understanding of the module materials, something which the traditional lecturing situation had often failed to achieve in the past.

Question 2.

How did you determine the members of each QLT in your classroom?

There was a variety of views on the best way to choose members of each QLT. One teaching team member allocated his students according to their elective subjects, or to closely associated electives – the sciences, languages etc. One teaching team member allocated her students according to their examination grades, in the hope that the more able students would help their less able peers. The remainder of the teaching team allowed the student teachers to choose their own QLT members, one encouraging gender specific QLTs.

Question 3.

Why do you think that it was necessary to introduce pedagogy using QLTs?

All members of the teaching team were in agreement regarding the necessity of introducing QLT pedagogy in order to create a more student-centred approach to learning, an approach more familiar to the foreign teaching staff. Allowing students to use their mother-tongue encouraged them to assist each other in gaining a greater understanding of the learning materials which were in English. The teaching team, recognising the low self-esteem of some student teachers and their reluctance to participate fully in lessons, effectively required the students to co-operate and collaborate with their team members through the use of QLTs to prepare and present materials to the whole class.

Lecturer #3 and #5 regarded the QLT pedagogy as an essential tool in overcoming the reluctance shown by some student teachers to become involved in the learning process, the QLT strategy effectively forcing them to become a part of the lesson as they presented their QLT materials. Lecturer #1 suggested that the students' attitudes at the beginning of the education module were disinterested and detached to such an extent that a normal approach to teaching was ineffective. Lecturers #2, #4 and #6 described how they had used various pedagogical approaches before the introduction of the QLT pedagogy but, for them, the QLT strategy proved the most effective, although it was very time-consuming. Lecturer #6 recognised that it was also

necessary to increase social contact between class members as students in his class appeared excessively shy. All of the teaching team were of the opinion that the majority of student teachers gained in self-confidence and in self-esteem which manifested itself in their QLT discussions and class presentations.

Question 4.

How successfully did the QLT pedagogy work in your classroom?

It was already evident from the responses to previous questions that the teaching team were convinced that the QLT pedagogy was worthwhile in creating an effective learning environment. When asked how well the QLT strategy worked in their classrooms the teaching team responded positively, despite some initial reluctance of student teams to become involved in the learning process in case they performed badly in front of their peers. Lecturers #3 and #4 commented that, while the QLT pedagogy worked well, it did require a huge commitment of each teaching team member in implementing it fully, requiring of each lecturer closer supervision and greater availability for tutorial sessions.

Question 5.

Do you consider that you received sufficient information and induction for using QLT pedagogy?

All of the teaching team members indicated that they had received sufficient information to ensure the effective use of QLTs in the classroom. Lecturer #2 professed her initial apprehension, despite the pre-intervention information sessions, but said that she had quickly gained a good understanding as she implemented the strategy in her classroom.

Question 6.

How would you describe the term QUALITY in QLTs?

There was a variety of views on this question, including the amount of student commitment, depth of understanding, student participation in the class activities and students' enjoyment as they learned together. It was evident that the teaching team agreed on one definition of quality: the effect of QLTs on the students' understanding of the learning materials. Lecturer #1 and #4 admitted to not being certain of how quality might best be measured or defined. But, after having used QLTs for two education modules, the two lecturers concluded that quality in this situation was not only in the depth of the students' understanding, but in the way in which the QLT members interacted with each other in reaching an understanding. The 'quality' was seen as the team members' commitment to each other and the task in hand. 'Quality', in terms of social and intellectual capital, is discussed in more detail in chapter 8 with reference to David Hargreaves (2001).

Question 7.

What was so difficult about the content of the education modules that prompted the use of QLT pedagogy in your classroom?

The major difficulty with the education modules was that the materials used were in what was a second language for the students. Many of them had also come from Chinese medium schools and the use of English, coupled the greater demands of a tertiary learning environment and the teaching styles of foreign lecturers, presented significant challenges to the First Year students. The use of their mother-tongue and the group learning situation provided not only a comfort-zone, but also a means to greater understanding of both text and concepts. Presentations also provided feedback for the English-speaking co-ordinator who was subsequently able to re-write some of the materials in more user-friendly English.

Question 8.

Did you or your class encounter any particular problems when using the QLT pedagogy?

This was a question that elicited much discussion from the teaching team. Lecturer #1 and #6 commented on the amount of time that had to be devoted to organising, supervising and providing tutorial time outside the classroom. Lecturer #2 and #3 described the difficulties that many of their QLTs found as they attempted to arrange meeting times, a problem also encountered by other teaching team members. In addition to these logistical problems was the inability in some teams of some of the members to collaborate at the beginning of the initiative. Those members who lacked self-confidence, be it in their language or academic performance, found it difficult initially to work in the openness of a group situation. This problem was eventually overcome through encouragement from the lecturers, group 'bonding' activities, the use of Cantonese when necessary and a willingness amongst the majority of the student teachers to embrace this new strategy.

Question 9.

Do you think that the students enjoyed working in small QLTs in your classroom?

It was evident from the comments made by Lecturer #2, #4, #5 and #6 that there were some difficulties in getting the student teachers to accept the QLT strategy initially. All of the teaching team agreed that the initial reluctance was quickly overcome as the teams began operating as a QLT. All of the teaching team also commented on their students' acceptance of each other's faults and their willingness to pool their individual talents and skills for the benefit of the team. For most of them, the learning environment

was refreshingly different from their school experiences and this in itself provided the motivation to overcome any difficulties and to work for their mutual success.

Interview Question	Illustrative Teaching Team Response	General Analysis by researcher
1 Having used the QLT pedagogy during the past year how useful do you think the strategy was for teaching the education modules?	<ul style="list-style-type: none"> • Quite useful • Very useful • A great help • Certainly improved understanding • A good strategy to help break down the barriers and for allowing individuals to connect 	<i>Positive feedback from all lecturers</i>
2 How did you determine the members of each QLT in your classroom?	<ul style="list-style-type: none"> • Allowed students to form own teams • Allocated teams according to Elective Subjects • Allocated good and poor students into each team. • Allowed gender groups to form teams • Members chose their own team leader 	<i>Variety of methods used</i>
3 Why do you think that it was necessary to introduce pedagogy using QLTs?	<ul style="list-style-type: none"> • The normal or traditional pedagogy proved ineffective with foreign lecturing staff so it was a necessary to introduce a pedagogy that would create an effective learning environment. • It got the students together and forced them to depend on each other • It provided a platform to increase depth of understanding • It encouraged team effort for class presentations • It provided the opportunity for teams of students to discuss issues in their mother tongue • It encouraged individuals to develop confidence, to be of assistance to peers and to gain self-esteem. 	<i>Student dependency on each other, increased confidence, better understanding, better presentations</i>
4 How successfully did the QLT pedagogy work in your classroom?	<ul style="list-style-type: none"> • Excellent • Very well • Certainly provided the impetus for students to become friends • Very well indeed • Brilliantly • It worked well providing close supervision and tutorial time given to each team 	<i>Teams worked well in all classes</i>
5 Do you consider that you received sufficient information and induction for using QLT pedagogy?	<ul style="list-style-type: none"> • OK • Yes • Quite good but maybe my understanding could have been better • Certainly provided stimulus for students to become friends 	<i>Generally good information</i>
6 How would you describe the term QUALITY in QLTs?	<ul style="list-style-type: none"> • Depth of learning and understanding • A class that certainly enjoyed taking an active part in activities and a good conceptualization of the educational issues in the module • All students getting together with a willingness to discuss and agree knowledgeably about module content • Team willingness to learn and to understand their allotted task 	<i>Enhanced learning and understanding, better commitment from students</i>
7 What was so difficult about the content of the education modules that prompted the use of QLT pedagogy in your classroom?	<ul style="list-style-type: none"> • Educational Psychology text very difficult English so team effort thought better in gaining a more full understanding • Medium of instruction and module texts all in English. Difficult for Chinese students. Teams facilitated student discussion in mother tongue thus providing better and fuller understanding • Too much content for second language learners to take in individually. Teams allowed to spread the work and resulting discussion within teams resulted in a good depth of understanding 	<i>All agree that text was difficult for second language learners. Concepts were also difficult to comprehend</i>
8 Did you or your class encounter any particular problems when using the QLT pedagogy?	<ul style="list-style-type: none"> • Yes • Lots of supervision and tutorial time needed • Yes but difficult to get all team members together outside class meeting times • Yes but some reluctance of a small group of students to work together – they appeared to be afraid of sharing their weakness in intellectual ability and language skills or understanding of the various concepts of their team task 	<i>Mainly time both in and out of the classroom and in teams getting together</i>
9 Do you think that the students enjoyed working in	<ul style="list-style-type: none"> • Initially no but by the end of the semester definitely yes they did • Yes they did once they accepted each other with faults, warts and all 	<i>Very much after initial reluctance and unwillingness to expose inadequacies in individual</i>

small QLTs in your classroom?	<ul style="list-style-type: none"> Some definitely did not like this strategy possibly through inadequacy in their own status and position 	<i>students</i>
10 Did you and your students find using QLTs useful for the use of portfolio assessment in the education modules?	<ul style="list-style-type: none"> Difficult sometimes to bring the two together but generally yes Yes with some guidance from lecturer As the QLT worked together it was clear that they were giving each other advice and assistance in completing their reflective statements for their portfolios 	<i>Generally yes it did</i>
11 Do you think that the students' learned more by using QLTs and if so how did this show itself?	<ul style="list-style-type: none"> Yes they did. Apparent in their confidence in addressing the problems set for each team and also in the depth of understanding The QLTs made them think and forced them to make considered judgements which could only be made with deep understanding They were more confident in talking about the subject matter and would defend their interpretation of the learning materials 	<i>All agreed that yes the students did learn more conceptually</i>
12 Do you think that the QLT strategy assisted with language comprehension and do you think it improved the students' use of English?	<ul style="list-style-type: none"> In the end yes it did assist because individual members of the team were given language support from peers and each encouraged the other in a friendly way to give a good reckoning and performance Some of the quiet students did not benefit very much as they took a background stance in discussions and in activities performed by the team 	<i>Yes they did as they supported each other when using English. Comprehension also was good when teams worked toward general understanding of the text</i>
13 Do you think that the QLT strategy helped to improve student self-confidence and self-esteem?	<ul style="list-style-type: none"> Very much As each team member learned to discuss and argue their point of view each seemed to gain in confidence The QLT made them come to a team consensus which made them very confident of that content that they were to present They could talk easily about the learning materials and also about themselves without apparent feelings of low self-esteem 	<i>Yes most definitely</i>

Table 33. Intervention Teaching Team responses to Interview Questions

Lecturer #2 and #6 found that there were students who participated with reluctance, who would have preferred to have had traditional teaching and who remained isolated within their teams. Their attitude was reflected in their poor results and, indeed, two of the disaffected students actually left the Institute to attend other institutions.

Question 10.

Did you and your students find using QLTs useful for the use of portfolio assessment in the education modules?

The teaching team agreed that the use of QLTs played an important part in helping the students to both meet the challenges of what was, for the majority, a completely new form of assessment and to present their portfolios at the end of each semester. The in-class tasks performed by the QLTs served as the bases for the students' independent writing in the form of materials-based assignments, reflective statements and video presentations which formed the contents of their portfolios.

At the assembly stage of their portfolios, the QLT strategy led to greater understanding of the materials through group discussions and presentations, provided language and technical support and an audience and, most importantly, collaborative response to lecturer feedback.

At the selection stage of the portfolios, the students were encouraged to support their team members in their search for evidence of personal learning, growth and understanding.

Question 11.

Do you think that the students learned more by using QLTs and if so how did this show itself?

Lecturer #4 commented that there was a definite improvement in the general performance of the students subjected to the QLT strategy compared to previous intakes and non-intervention classes. Their greater understanding of the materials and their ability to demonstrate this understanding was evident in their presentations, in their higher grades, in their portfolios and, in some cases, in their application of what they had learned in their teaching practice classrooms.

Question 12.

Do you think that the QLT strategy assisted with language comprehension and do you think it improved the students' use of English?

Lecturers #2 and #3 suggested that, because the student teachers were encouraged to use both Cantonese and English to support their team members, they generally made a greater effort to read for understanding and their efforts were reflected in their increasingly confident class and video presentations and personal statements.

Lecturer #6 commented that the use of English in order to learn provided greater authenticity and purpose and resulted in its improved usage.

Lecturers #4 and #1 agreed that the passive learner of the traditional lecture theatre situation had been replaced by the increasingly outspoken students in the QLTs, their willingness to use English to communicate in the classroom far outweighing their fear of making mistakes.

Lecturer #2 attributed the general increase in the students' social ease with the English language in their presence, as well as electronically, to the opportunities afforded by the use of QLTs.

Question 13.

Do you think that the QLT strategy helped to improve student self-confidence and self-esteem?

The teaching team agreed that the students in their QLT classes exhibited increasing confidence over the two semesters. Some of the lecturers, who were using traditional

teaching methods in other classes, commented that this confidence was particularly obvious in a comparison with their non-QLT students.

Lecturers #5 and #6 felt that the use of QLT really put students 'on the spot' in order to contribute to discussions and presentations, with the logistics of the sessions imposing different responsibilities each week.

Lecturer #3 said that, in his class, it had been gratifying to see students increasingly willing to take risks in public, in the knowledge that they had the support of their QLT.

Lecturer #6 felt sure that the use of the alternative assessment in tandem with QLTs had helped to build confidence in his students who were beginning to realise the importance of their opinions and of assessment as a learning opportunity.

The teaching team all commented on the use of self and peer-assessment as a great confidence-booster, particularly as they highlighted the appropriateness of QLT in the student teachers' own teaching and learning.

The Best and Least Liked Aspects of Quality Learning Teams

The responses of the teaching team members relating to best and least liked aspects of QLT can be examined in Table 34 (p.146). In general, all of the teaching team agreed that the QLT pedagogy was a tremendous help in fostering student understanding and in making students more confident and assured about themselves and also about their choice of future profession.

Best Liked Aspects

The teaching team were unanimous in their support for the use of QLTs in the classroom. They appreciated the freedom the strategy afforded them to observe, encourage and advise the students in their classrooms and the opportunity to get to know them in the tutorials which were increasingly animated and productive as the QLTs 'took hold'. The lecturers were pleased to see how the students took responsibility for their own learning and began to relate how they were learning to their future teaching. Working in teams, the students exhibited greater individual confidence, as well as support for each other, and the learning and teaching benefits of the strategy were obvious in their presentations and portfolios.

The teaching team acknowledged the greater understanding, productivity and higher standards achieved by the students using QLT, reflected in their assessments and

compared with the performance of previous and non-intervention intakes. Lecturers #4 and #5, accustomed to a more traditional approach to teaching and learning, appreciated the relevance of the strategy to the HK Government's Education Reforms and were pleased to put a student-centred approach into practice. The whole team had also enjoyed the increased co-operation and collegiality which the implementation of the QLT had afforded.

Liked Best	<ul style="list-style-type: none"> Allowed freedom in the classroom Placed responsibility for learning on shoulders of individuals and peer team members Encouraged lecturer/QLT tutorials to offer additional support to each team throughout the semester Encouraged better collegiality as much cooperation needed between lecturers Good to see students with low self-esteem gain confidence and grow as individuals as they came to realize that they could actually do the work as well as their team mates 	<i>All liked the strategy, as it was different from the traditional lecture mode. It provided some leeway in organizing the lessons and allowed time to assist teams</i>
Liked Least	<ul style="list-style-type: none"> Took a lot of organizing Didn't like loosening of the reins in my classroom A big problem with adequate allocation of time Huge commitment of time outside classroom with constant tutorial sessions 	<i>Time was the issue with all. Too much expected but rewards were worth the effort</i>
Overall Comments	<ul style="list-style-type: none"> Generally a good strategy Certainly improved learning and understanding End of semester grades were improved on previous grades using traditional teaching Excellent affects with helping to build individual portfolio's for the module 	<i>Will continue to make use of the strategy</i>

Table 34. Intervention Teaching Team responses to Best and Least Liked things about using QLTs in your Classroom

Least Liked Aspects

Lecturer #2 admitted that, initially, she had felt intimidated, her traditional status diminished, by the necessity to transfer the responsibility for learning to the students in her class. It was several sessions into the initiative before she began to appreciate her role as facilitator in a classroom where the level of noise and informality had seemed to her to indicate a lack of control. Other members of the team echoed her sentiments, but agreed that their apprehension had been comparatively short-lived.

The amount of time which needed to be dedicated to what was, after all, only a part of the teaching team's commitments, was the greatest 'bone of contention'. Just as the student teachers had had great difficulty in finding time to meet and work together on team initiatives, the lecturers had found the demands made on them, to conduct tutorials, assess the students and maintain 'ex-classroom' communication, quite onerous. However, the team agreed that the review being currently undertaken in line with the Government Education Reforms, should lead to a more student-centred curriculum and that the allocation of time would be addressed. The lecturers also attributed the time-consuming aspects of the QLTs to the 'newness' of the strategy.

Summary of Teaching Team's Post-Intervention Meetings

The lecturers discussed many of the issues that affected student teachers as they worked and struggled with the QLT pedagogy. The student teachers had clearly enjoyed the whole experience and less than ten per cent had disliked it because their school experience had ill prepared them for inclusion in group or learning team situations and, consequently, for the QLT innovation.

It was agreed that QLT had achieved social interaction between members, encouraged individuals to express and defend themselves, assisted in building individual self-confidence, prepared individuals for presentations and helped the participants to recognise that the QLT pedagogy might prove to be a useful strategy in their own classrooms in the future.

Teaching practice observations reflected elements of good classroom practice taken on board by the students in their own learning situations, as well as collaboration amongst the student teachers based at the same schools.

Tutorial sessions had been animated, formerly reticent students speaking out and female students becoming increasingly confident and the regular communication between lecturers and students on an informal basis had certainly helped to build what was felt to be a more effective learning environment.

The teaching team commented on the improvement in performance on previous intakes, with an increase in standard and classroom productivity; and the moderation of student portfolios provided a comparison in which those students who had used QLTs achieved higher grades than their peers in the non-intervention classes.

The use of QLTs was felt to be as time-consuming for the teaching team as it was for the students. For some it was a new experience, as was the use of portfolio assessment, and the use of the pedagogy in isolation, against the background of more traditional teaching methods at the Institute, and in addition to their other commitments, compounded the situation. It was hoped that with the implementation of the Education Reforms and the review of the curriculum, the stage would be set for a wider adoption of the QLT pedagogy at the Institute.

Despite the disadvantages of implementing QLTs cited in Table 33 (p.142), the entire intervention teaching team were unanimous in their support of an initiative which had benefited the student teachers both academically and socially. The positive indications

of the Intervention were felt to be such that the lecturers on the intervention teaching team determined to continue using QLTs in their future teaching and were encouraged to look more closely at the use of other student-centred approaches to teaching and learning.

Non-Intervention Teaching Team Qualitative Data

The non-intervention teaching team members who decided not to be a part of the QLT intervention continued using a traditional Hong Kong pedagogy. It was clear from the qualitative data collected from those lecturers, through discussion and interviews, that the non-intervention classes were using group learning to some extent, ranging from pair work to small learning groups/teams of four or five students.

The non-intervention teachers were interviewed in July 1998 and July 1999. It was important to compare their views and perceptions regarding the use of co-operative learning groups in their 'traditional' classes. The non-intervention interview schedule (see Appendix 17) followed a similar line of questioning as that for the intervention interviews, but was worded to embrace a more general approach to learning groups or teams.

As they were not isolated from what was happening inside the intervention classes, where the QLT pedagogy was being used, the non-intervention teachers were aware of what results were emerging in the six intervention classes and this may have influenced their views and what they did in their own classrooms.

The researcher's intention was not to devote a great deal of time to investigating exactly what went on inside the non-intervention classrooms, but more to draw some rudimentary comparisons of the classes.

The non-intervention teachers were aware of the QLT pedagogy being applied in the intervention classes and as a result may have been influenced into using more collaborative group learning than they might normally have done. The time they did devote to learning groups/teams, whilst not as substantial as in the intervention classes, was devoted to group presentations. The non-intervention teachers did not think that the use of learning groups had increased their students' understanding of the concepts involved, but that it had helped in their understanding of the Chinese and English learning materials.

The non-intervention teachers also found the amount of organisation and time necessary in the supervision of the groups a cause for concern.

There was some scepticism about using learning groups because of the perceived difficulty in allocating grades fairly to individual group members.

The non-intervention teachers also expressed a reluctance to use group learning because they felt its student-centred approach diminished their role in the classroom.

The interview data collected from the non-intervention teaching team, see appendix 26, illustrates the views of the staff members and provides useful comparative qualitative data.

Chapter 8

Discussion and Conclusions

This chapter begins by discussing the major findings of the study and proceeds to examine the results in relation to the literature reviewed and resulting research questions. After an examination of the implications for the research and its contributions and limitations to teacher education in Hong Kong, the chapter concludes with a discussion of the anticipated links between the QLT pedagogy and improved practice in teacher education in Hong Kong.

Major findings of the study

Chapters 5, 6 and 7 examined and analysed different aspects of the summative and qualitative data, all three chapters indicating the student teachers' positive responses to using the QLT pedagogy in their teacher education course. From the qualitative data it is evident that the student teachers, apart from a very small number (less than twenty of the six hundred student teachers who took part in the study), and teaching team members enjoyed the experience. The student teachers developed friendships through the closeness of the working teams and indicated that they perceived increased self-confidence in themselves and a willingness to work with their fellow student teachers in an atmosphere of collaboration and co-operation. This increased self-confidence amongst the student teachers provided the motivation to overcome, not only the learned helplessness that many students suffered at the beginning of their course of study, but also their tendency for passive learning, and to embrace a new way of learning. Results of the QLT learning strategy were reflected in higher module grades for the intervention classes than for the non-intervention classes.

The interviews and tutorial sessions provided further insight into the student teachers' feelings and competence in using language for communication. The mother tongue for most students was Cantonese, those from the mainland and other Chinese speaking

parts using Putonghua (Mandarin). English was a second or third language for most student teachers. The use of multiple languages in the QLTs provided increased opportunity for conceptual understanding while their confidence and use of English improved.

The positive results observed in the first cohort of student teachers in 1997-1998, led to a continuation of the study with a second cohort of students in 1998-999. The successes of the first cohort, in terms of higher grades, were echoed by the second cohort.

The significance of student teachers' pre-course perceptions on the introduction of the QLT pedagogy

The student teachers' preconceptions about teaching and learning significantly influenced their attitude towards the QLT pedagogy when it was initially presented to them. Those preconceptions were, naturally, based upon their own experiences as students in Hong Kong schools and on their reasons for pursuing a career in teaching. In this, the student teachers in Hong Kong were no different from student teachers elsewhere (Calderhead and Robson, 1991; Knowles, 1991; Sparks-Langer and Colton, 1991; Sugrue, 1997 and Tillema, 1997). For the majority of the student teachers, these preconceptions were a hurdle to be overcome as far as introducing the QLT pedagogy was concerned.

Benjamin Li (2000) also found that the students in his study (some of whom were involved in the QLT pedagogy) were suffering from previous 'negative educational experiences' (p.169) and considered themselves weak in English on entry to the Institute of Education. The student teachers brought to the teacher education programme the general view that teaching was doing what their own teachers had done, 'just' standing in front of a class and giving information. The student teachers, therefore, entered the teacher education course with expectations of the programme and for their own learning based on their own limited experiences, a factor, described by Tillema (1997) and Sugrue (1997) that 'influences how those student teachers make sense of their teacher training experiences'. With few exceptions, the student teachers had had few learning experiences at school which might have been described as 'joyful', or witnessed innovative practices by their teachers. Teaching, it was generally surmised, was an easy job, requiring little effort, no preparation, with good holidays and plenty of time for leisure activities and a reasonable, life-long salary.

Benjamin Li's (2000) study did not pursue the student teachers' backgrounds beyond their experiences with their teachers and language learning. The data collected also revealed that 54% of the student teachers had not been offered their first choice of a university placement and, as a result, had decided to undertake a teacher education course as a 'second best' option. Many student teachers, failing to attain their 'level of expectation' (Locke and Latham, 1990), an indicator of what students might expect to attain in their studies, or their 'level of aspiration', embarked on their teacher education course with a pre-existing sense of helplessness and very low levels of expectation. It was clear, too, that a majority of the student teachers had experienced the 'failure' or 'shame' culture, described by Bond (1996), Ferguson (2000) and Wicker *et al* (1983), as something ingrained in many Chinese students from primary school upwards. The 'shame' for nearly all of the student teachers in the age range 19-21 years, constituting 45% of the student body attending the course, began with lower than expected "A" level examination grades, resulting in many of them repeating their "A" levels. Added to this initial 'shame', was the 'shame' of 'failing' a second time, often at huge expense to the poorer families, and having to attend a teacher education course which was not perceived by some families as prestigious or as financially rewarding as other occupations in Hong Kong at that time. This 'shame' culture imposed by their upbringing and family fealty sometimes led to depression which many of the student teachers exhibited during their first interviews and individual tutorials.

Many student teachers brought with them, not only their negative perceptions, their 'shame' and their negative educational experiences from the past, but definite leanings towards 'learned helplessness' described by Craske (1988), Diener and Dweck (1978), Hiroto and Seligman (1975) and Weiner (1992), as being predisposed to failure as something inevitable in the light of their previous educational performance. Weiner (1992) suggests that this condition is more likely to occur in female students, a suggestion that certainly seemed, from the data collected, to hold true for the mainly female student teachers, though the comparatively small number of male students precludes a valid comparison in this instance. The learned helplessness was exhibited by many in their initial interviews and tutorials and in their *laissez-faire* attitude towards their assignments initially.

Significance of the results in relation to the Literature

Catherine Tang (1996) describes the Chinese learners' pre-disposition to a collectivist approach to learning, which she found in her students at Hong Kong University who worked collaboratively in pairs outside the classroom, as an attribute which could be exploited. Conversely, Paul Chan (2001) in his study of Chinese teachers using co-

operative and collaborative learning, found that many new teachers had dismissed co-operative learning as difficult to organise and evaluate. Chan's study serves to illustrate the Hong Kong, Taiwan and Macau school culture which puts teachers under pressure to complete curriculum targets and maintain strict control in class. The teachers' apparent reluctance to use co-operative learning stemmed from the increased workload and problems with classroom discipline they envisaged it would create.

The Hong Kong Education reforms (Curriculum Council, 2001), however, promote student-centred learning and this is something which the implementation of the QLT pedagogy sought to address. In addition, role-modelling the QLT pedagogy was of extreme importance, as student teachers take much of their style of teaching from their trainers (Tang, 2001; Gow and Kember, 1993; Ho, 1998; Trigwell, Prosser and Waterhouse, 1999; Mellado, 1998 and Scott and Roger, 1995).

The graduate interviews indicated that, although Hong Kong school principals continued to resist attempts at using learning teams through co-operative learning, some of the graduates were enjoying some success in implementing this student-centred learning style. One of the graduates from the 1997 cohort recently returned to part-time study for a B.Ed. at the Hong Kong Institute of Education, had been interviewed in 2000 and had indicated that she was attempting to introduce co-operative learning teams, but large classes and principal and senior teacher opposition had dampened her enthusiasm. In a class sharing session on 05-03-2003, however, she described her school's attempt to introduce some of the Hong Kong Government's Educational Reforms through an innovative strategy using a combination of learning teams and project work. The pupil researchers were encouraged to approach different participating teachers who provided support and direction as they went about the business of research and reporting. She reported that her experience of QLTs had enabled her to take an increasingly leading role at her school in making this 'new' way of learning a success. She was very grateful for her own QLT experience which she was witnessing in her own students. She reported great success in using the combined QLT and project strategy at her school where the students are, she says, happy and active learners who support each other and who were gaining a deep conceptual understanding of their projects and their application to the world outside school. The social and intellectual capital referred to in David Hargreaves (2001) would appear to be at work in this school with its collaborative and collegial approaches to teaching and learning.

Lee, Wing On (1996) talks of the individualist learning style of the Chinese Learner and the culture that has encouraged it. Hong Kong has encouraged individualist learning with its strong examination culture where results hold sway. Ming (1996) explains that examinations are seen by Chinese as a cultural heritage hard to overcome or change. Since the Quing Dynasty, nearly two thousand years ago, when examinations began to dictate entry into the civil service, Hong Kong has been examination driven. The QLT strategy seeks to shift the emphasis from the individual's performance in examinations to his/her achievements as a result of working with others. Whilst it will probably remain a strong influence in Hong Kong culture for some time to come, QLTs have demonstrated that an individualist approach is not the only way to gain excellent results and this has encouraged the students in the study to have a more open view of learning and hopefully engendered in them a desire to implement the strategy in their own classes. Despite opposition encountered in their teaching practice schools towards more collaborative classrooms, many student teachers indicated that they would try a QLT approach when they were in a position to do so.

The QLT pedagogy was reported by students attending the B.Ed. Secondary Course at the Hong Kong Institute of Education, in March 2003, as beginning to be implemented in many schools as the Hong Kong Educational Reforms are gradually introduced. The B.Ed. Secondary class, which the researcher is teaching at the time of writing, is examining curricular reform in Hong Kong schools and, of its 32 members, 14 had taken part in the QLT study and they report that they, because of their QLT experience, have been asked to take prominent roles in their schools' transition towards a more student-centred approach to learning. Learning through projects, for example, has been introduced and is proving popular with both teachers and students, the latter more motivated and, as a result, achieving a greater understanding of the concepts involved.

Bailey's (2001) assertion that Chinese women are the most oppressed in the world is a view that Hong Kong might challenge because of her track record of successful women in politics and commerce. However, according to the qualitative data collected for this study, the Chinese culture continues, in certain ways, to hold women back in Hong Kong. The female student teachers, who comprised 80% of the Certificate of Education cohorts, indicated parental pressure on them to enter the teaching profession, deeming it a safe, relatively well paid and long-term job, if not as prestigious as other occupations. This fits with Bond's (1996) filial piety attribute of Chinese children, and with the importance of gender in Chinese families (Ross, 2002), male offspring having a more prominent position when it comes to schooling and career. This was reflected in

the feelings of some of the female students as they entered the Hong Kong Institute of Education.

Dahlin, Watkins and Ekholm (2001) suggest that the cultural attachments to summative examinations will be difficult to surmount in Hong Kong and attempts at introducing a 'Target Oriented Curriculum' (TOC) (Morris, 2002) in the early 1990's were comprehensively quashed, because it was thought that they would lead to a heavier teacher workload, the classes were too large and there was insufficient staff development (Morris, 2002). Some parents, teachers and principals were reluctant to replace the objectivity of the examination system with what they perceived as a more teacher-reliant style of assessment based on criterion referenced attainment targets. The administrators, teachers and parents fought, therefore, to maintain a summative assessment system.

The Government introduced its Educational Reforms in 2001, having learned from the failed TOC initiative that educational change has to be gradual, addressing the concerns of parents, teachers and administration and including them all in its implementation, as well as providing a support system for them all. It was recognised that educational reforms intended to bring about what was perceived in Hong Kong as radical change rely on the inclusion and co-operation of all members of the community. In addition, the Reforms, unlike the TOC which was concerned only with the teaching of language and mathematics in the primary sector, are aimed at both the primary and secondary school systems in Hong Kong.

It is now, in 2003, that these alternate forms of assessment are being introduced in some schools - a case in point the project learning described previously which is graded in a formative way, using criteria and providing targets to be attained. More important for Hong Kong schools and parents, however, is the place that such formative assessment can occupy in the changing curriculum which still includes some summative assessment. Instead of examining the students on the basis of their retention of facts, examinations can now allow for a demonstration of students' understanding and application of what they have learned. So, while Hong Kong schools are taking formative assessment on board, they can still maintain a strong bond with their examination culture, providing for student placement and satisfying societal aspirations.

The student teachers at the end of the QLT study appeared to be less influenced by what Watkins and Biggs (2001); Beck (2000); Bond (1996); Ferguson (2000) and

Wicker et al (1983) describe as the 'hedonic axiom and drive' of Chinese students. They displayed a change of attitude towards teaching and learning which they took with them to their schools where they are now instrumental in the gradual introduction of innovative strategies into the curriculum. At the time of writing, the researcher is teaching some of these ex-QLT students who are studying on the B.Ed. (Secondary) course.

Quality

David Hargreaves (1982) describes the anomaly of two curricula operating in the same school. Although he was describing the comprehensive school system in the UK, this could arguably be applied to any school system in the world, where a government regulated curriculum runs parallel to the 'hidden' curriculum that takes so much of teachers' time in any school. Hargreaves talks of the 'hidden' curriculum in the following terms:

"It is the hidden curriculum, not the formal one, which educates modern man into his distinctive form, and the hidden curriculum transmits the same basic lesson wherever there are institutionalised schools, whatever the variation in the formal curriculum" (Hargreaves, 1982, p.9)

Hargreaves points out that the hidden curriculum accounts in a very important way for the building of social relationships which determine how students behave in school and how well they develop their emotional intelligence in order to deal with the day-to-day culture of school, home and, eventually, the workplace. If, as Hargreaves believes, the hidden curriculum has a greater impact on students than the formal curriculum, and if this impact results in a 'destruction of their dignity' because of the poor social relationships within a school system, the learned helplessness and 'shame' exhibited by many of the student teachers engaged in the study might well be attributed to the hidden curriculum in Hong Kong schools where success is judged by their students' performance in examinations.

In contrast, QLT pedagogy fosters social relationships and close ties were forged between student and teacher and between student and student. Ames and Ames (1992), Hargreaves (1998) and Siefert (1995) refer to emotional ties as being essential to the learning process, in student examination success, and also in more formative assessment exercises. One B.Ed. student (March, 2003) described her school as having built a stronger class/year band and school culture through the use of co-operative and collaborative learning team work which resulted in closer social and emotional ties between students, students and teachers and between teachers and teachers. A recent article in the Times Educational Supplement, February 7th 2003, by Keith Cox, an assistant Principal in a high school in West Yorkshire, stressed the

success his school had enjoyed when using pedagogy that encouraged the use of the 'emotional intelligence' of learners. Cox supports the importance of emotional intelligence as "the key to effective learning" (McBride and Maitland, 2002; and Reuven Bar-On and Parker, 2000). Andy Hargreaves (1999) speaks of focusing on motivation and emotion in classrooms to ensure effective learning. Emotional ties have been sadly neglected, suggests Hargreaves, and more research should be conducted to establish their proper place in teaching. Howard Gardener (2002) joins the debate on emotions and specifies emotional intelligence as the key to the minds of children. In his book, 'The Unschooled Mind', Gardener (1991) calls upon teachers to jettison the "fast-food approach to education" and concentrate on individual student learning to accommodate differences in learning styles and approaches. Gardener (2002) asserts that the 'special' skill or intelligence that every child inherently possesses can be utilised to motivate and foster self confidence and esteem. The QLT strategy sought to exploit this emotional intelligence in the student teachers and those who were suffering from learned helplessness and 'shame' became more motivated and confident as a result.

'The Emotional Reality of Teams' (Goleman et al, 2002) suggests that research over the past decade has proved the superiority of group decision making, as they exhibit the qualities of emotional intelligence, over that of individual decision making:

"Collective emotional intelligence is what sets top-performing teams apart from average teams...and determines a team's ability to manage its emotions in a way that cultivates 'trust, group identity, and group efficacy' and maximises cooperation, collaboration, and effectiveness"
(Goleman, Boyatzis and McKee, 2002, p.177)

The importance of the QLT strategy lies in its development of the team's emotional intelligence and in fostering in the team an awareness of its members' contributions and needs and of when a team member feels uncomfortable in learning a task and needs support (Goleman et al, 2002, p.179).

Bond (1996); Ferguson (2000) and Wicker et al (1983) describe the Chinese 'shame' culture which had had a profound effect on the student teachers in the study as they began their Certificate in Education Course. It was evident from the data that the QLT strategy had a positive effect on the students suffering from both shame and learned helplessness as they gained in confidence and self-esteem and began to enjoy learning. The students attending the B.Ed. Secondary Course, March 2003, some of whom were a part of the QLT study, are confident and assertive and exhibit none of their previous traits of 'shame' and learned helplessness. This might well be attributed to maturity and experience, but they asserted that they had not only learned a great deal when they were a part of the QLT study, but that they had gained in confidence as

a result and this had helped them to be more assertive and to take a prominent role in their schools' introduction of curricular change.

Contribution to the Literature

This study has provided findings which complement and add to the literature examined in Chapters 2 and 3, in part filling the gap in the collaborative and co-operative groups research carried out in Hong Kong. Using a QLT strategy in Hong Kong provides an alternative to some of the traditional approaches to learning which inhibit the implementation of innovative pedagogy in teacher education and, subsequently, in schools. Literature and research studies of teacher education in Hong Kong have been extensive, but none has examined in detail the role modelling by student teachers of a particular pedagogy in order to enhance an understanding of the pedagogy and its benefits. Chow (1996), whilst discussing the benefits of student teachers learning from one another, also argues that critical analysis and reflection are enhanced in a non-threatening environment such as that found in peer learning groups which also boost student teachers' confidence. The non-threatening aspect of the QLT strategy goes even further than Chow's assertions as it fosters relationships and friendships, thus creating a support system in a non-threatening environment. Paul Chan's (2001) study concentrated on new teachers using a collaborative or co-operative learning approach to learning in schools. This study has shown that by role modelling the pedagogy as student teachers, they are more prepared to implement it in their own classrooms. The student teachers, by role-modelling the pedagogy, demonstrated to themselves the effectiveness of the QLT strategy in their own improved performances and perceived how it would affect the performance of their own students in the years ahead.

The QLT Study and the Research Question

- *Does the use of Quality Learning Teams stimulate motivation to learn in student teachers attending initial teacher education courses in Hong Kong?*

From the data analysed in Chapters 5, 6 and 7, it is evident that the QLT pedagogy addressed the research question and did provide a value-addedness in terms of both teaching and learning that resulted in motivating student teachers attending their education course at the Hong Kong Institute of Education – as do more recent reports from former graduates now studying on a part-time B.Ed. course, who were part of the QLT initiative in 1997 and 1998. Even those student teachers who initially regarded teaching as 'second best' had revised their opinion by the completion of the QLT initiative. Those student teachers, who had thought teaching was a traditional, cultural-based, institutionalised form of providing knowledge in the hope that learning would

take place, became more receptive and eventually agreed that there were 'other' ways to teach. The QLT strategy helped to overcome the feelings of failure experienced by some student teachers. Female student teachers envisaged a career which placed men and women on an equal footing and provided equal opportunities.

From the reports on those students from the study who are now attending the B.Ed. Secondary Course at the Hong Kong Institute of Education, it is evident that student-centered approaches to learning are being introduced in many schools in Hong Kong and their part in that introduction is often a prominent one, exploiting their knowledge and experience of the QLT pedagogy. The QLT study demonstrated that the 'shame' culture could be overcome and evidence of it gradually became less obvious in those students who had been obviously affected as they became involved in the QLT pedagogy.

The findings of the study also show that there was a marked difference between the groups who were subjected to the QLT strategy and those who received traditional teaching, in terms of grades and the conceptual understanding demonstrated in the student teachers' individual portfolios at the completion of the education modules.

Implications for the Research

Early in the study, attention was drawn to those student teachers who appeared to suffer from a lack of motivation. This lack of motivation was highlighted in initial student background information which pinpointed negative learning attributes which the student teachers had brought with them to their education course, namely:

- Poor student participation in classroom interactions,
- Low self-esteem
- An inability to recognise their own worth and capability to learn,
- Lack of face - the 'shame culture' and their perceived failure,
- Perceived family dishonour.

The research has implicated that the student teachers who exhibited such traits were helped through the use of a QLT strategy. Some of these same students now find themselves involved in the movement in Hong Kong schools to introduce more student-centred pedagogy as a result of the gradual implementation of the Government's reforms. Their memories of the QLT strategy, and how it helped them to overcome their sense of helplessness and lack of confidence as they embarked on their teacher education courses, have not only fuelled their enthusiasm for its use in their own classrooms, but placed them in the position of 'experts' in their schools. They

see themselves as pioneers in initiating changes which will hopefully eradicate the negativity they themselves experienced.

While the use of the word 'quality' continues to conjure up examples of industrial models increasing production quotas, it can also be applied to an educational setting., where 'quality' is recognised as more than a finished product, the attainment of a qualification.

David Hargreaves' (2001) article, 'A Capital Theory of School Effectiveness and Improvement', discusses 'social capital' and 'intellectual capital' as prerequisites to a 'quality' environment in any organisation. Hargreaves talks of the assumed need for school output, be it "intended or unintended, to refer to the quality of the intellectual and moral life of the students" (p.489). Intellectual capital, says Hargreaves, can be measured by two important factors, namely: "the creation of new knowledge and the capacity to transfer knowledge between situations and people" (p.490), both of which are represented in the data in Chapters 5, 6 and 7. He defines *intellectual capital* as

'the sum of the knowledge and experience of the school's stakeholders that they could deploy to achieve the school's goals...(which) grows by the *creation* of new knowledge and the capacity to *transfer* knowledge between situations and people.' (p.490)

Social capital has both cultural and structural components: the *trust* between people and the *networks* which bind people to each other. The November 2002 European Conference on Educational Research, hosted by Edinburgh's Education Department, with its theme of emotional intelligence, attracted a definition from Daniel Goleman on emotional intelligence: "how well we handle ourselves and each other" which fits well with Hargreaves' definition of 'social capital' considered so essential in good working relationships and teamwork. According to Hargreaves, 'High levels of social capital in a school strengthen its intellectual capital' – collaboration is the norm and trust an expectation for the teachers and students.

The QLT strategy created just such a *quality* environment, in which the good social capital fostered a higher level of intellectual capital within the intervention groups.

The drive for social and intellectual quality is also evident in the Hong Kong Government Education Reforms that specifically look at quality in terms of student learning and the pedagogical approaches utilised by teachers, quality in education being recognised as originating in the mind and in the heart of each child and teacher that goes beyond the 'traditional' Hong Kong way of teaching with its exam-driven, teacher-centred curriculum. In March, 2003, Mrs. Leona Lam, a Hong Kong Principal,

in a discussion about the quality of teachers whom she had recently interviewed, specified a good teacher as one who has the 'right heart', who will use different pedagogy to reach even the most difficult of learners. She quoted one of her staff as having just such 'heart', a graduate from the Hong Kong Institute of Education and part of the 1998 QLT study, who had undertaken innovative teaching strategies, including using learning teams in her classroom.

If it is assumed that the potential for quality is within each person, as well as the desire for success that is not based solely on pragmatism or on exam results, then what triggers this potential? The QLT initiative aimed to stimulate a desire in the student teachers for learning beyond graduation and becoming a qualified teacher and towards life-long learning. The QLT intervention encouraged student learning and promoted pedagogical innovation so that the learning was self-fulfilling for the majority of student teachers. The major implication for the QLT study is therefore its long-term effects in those Hong Kong schools in which it has been implemented by the teachers who had experienced the QLT strategy as students themselves.

Conclusions drawn from the study of QLT Pedagogy

Dalin's (1993) findings indicate that teacher and student learning are substantially enhanced through the use of teaming in the classroom. The school culture grows in strength; teachers and students report that they find working with their peers exhilarating and beneficial; the school enjoys success in terms of both examination results and the collegiality between teachers and administrators: the social and intellectual capital described by David Hargreaves (2001). Students in Dalin's study report learning, not only about themselves, but also about communication strategies and a wider tolerance for the views of others. This is also reflected in the results of the data collected for the QLT study and in the reports by graduates on what is happening in Hong Kong schools today.

Validity of Data

The data in Chapters 5, 6 and 7 represents a three dimensional approach to verification and repeatability, corroborated as it is in a number of ways through triangulation. The triangulation of data from different sources is illustrated in figure 13, providing the rationale for the analysis and the validation of the study.

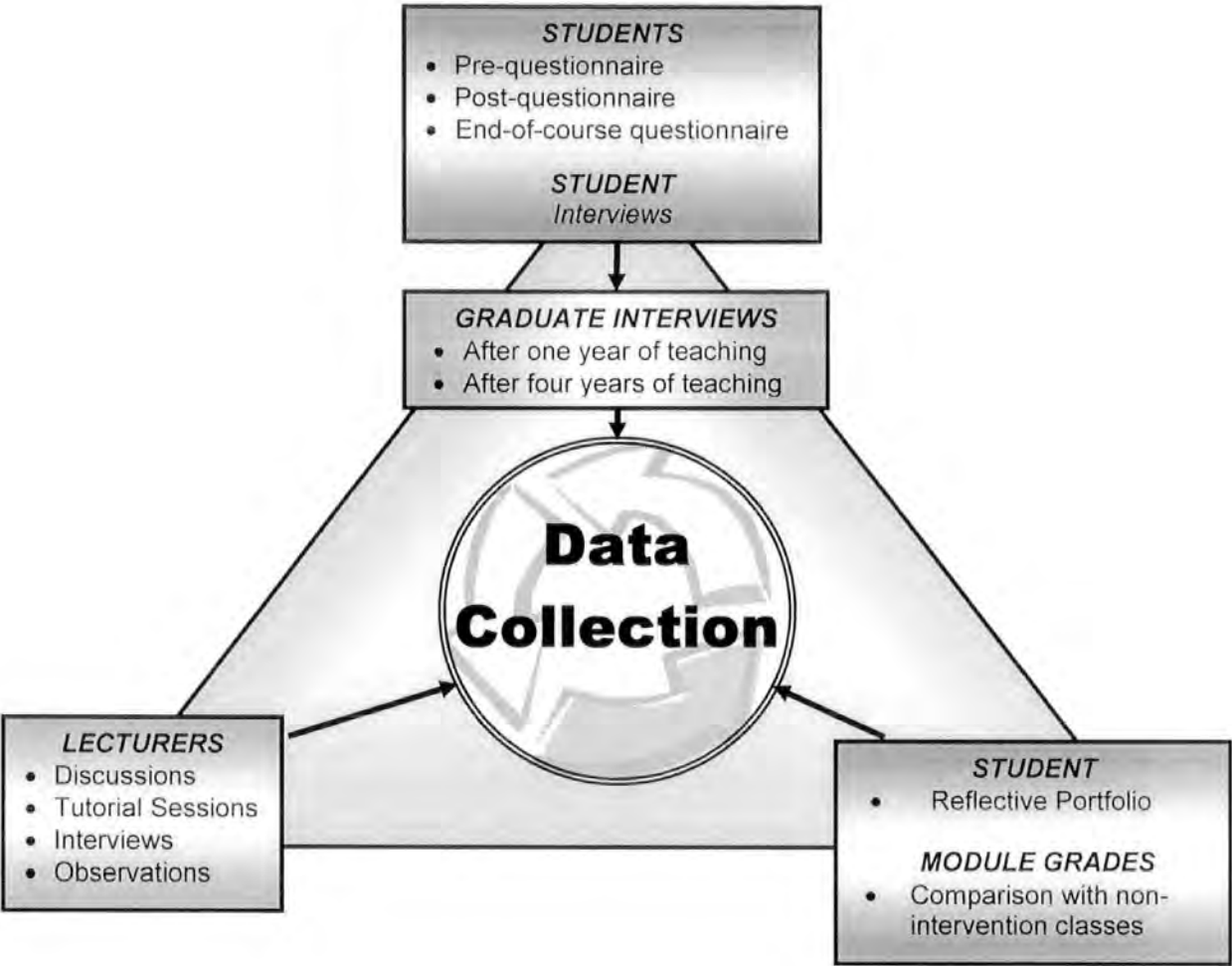


Figure. 13. Illustration of the Triangulation of Data

Limitations of the Study

The study has generated a great deal of data demonstrating that a QLT pedagogy can successfully motivate Chinese student teachers in Hong Kong, and produces improved module results. However, the study does have its limitations.

It could be surmised that *too many* questions emerged and that the researcher had attempted to examine in one study what could well have provided the material for several separate studies.

It could also be argued that, instead of randomly selecting respondents to questionnaires and subjects for interviews, a longitudinal approach might have been more effective.

The time constraints of conducting action research involving an innovative pedagogy were felt by all involved in the intervention. No special provision was able to be made, time-wise, within the 'traditional' schedule of the Institution, for the group work which had to be conducted outside the classroom situation and this put pressure on students and teachers alike, affecting group dynamics and, occasionally, production.

Closer attention might also have been paid to the comparison of the intervention and non-intervention groups.

The cultural background of the researcher and of the intervention teaching team who were not Chinese might well be considered a limitation. Unable to gain direct access to the culture of the Chinese learner, the nuances of the Chinese language or the Chinese student teacher's thinking, the team had to rely on their limited experience of teaching in Hong Kong, their own research and on the translation of some of the data. A multi-cultural team would be better placed to shed light on, and put into perspective, the cultural background of the student teachers and better able to examine their reflections collected in their mother tongue, with less likelihood of a misinterpretation of the views of the respondents.

Watkins and Biggs' (1996) suggest that this type of action research, carried out inside the classroom, is a powerful way of achieving curriculum change; yet, in this study, the observations made by the teaching team might have been misconstrued, misunderstood or misreported because of the language limitations of the observer and of the student teachers alike. Research based on the interpretation of students' thinking can, by its very nature, be limiting.

Another problem lies in the role of the researcher who not only undertook the major work of the study, but also taught some of the student teachers who were a part of the study and supervised them on teaching practice. This close relationship might have compromised those student teachers who may have responded to the questionnaires and interviews with a view to pleasing their teacher, although these ethical issues were carefully considered, the triangulation of data providing breadth and, hopefully, an acceptable and valid reflection of the thoughts and feelings of the student teachers.

It might also be argued that promoting the eventual introduction of the QLT pedagogy into Hong Kong schools, with their often overcrowded classrooms and opposition to change, was not authentic preparation for the student teachers.

Teacher Education in Hong Kong: The need for a closer link between practice and research

This study, an action research approach to implementing and studying pedagogic change inside the classroom (Watkins and Biggs, 1996), provides a direct link between research and the student teacher practitioner during the process of teacher education. Li's (2001) call for closer ties in this area is partially addressed in this study, providing as it does an examination of theoretical issues concerning the Chinese student teacher learner and teacher education practice, which is examined in the context of a real classroom. Schempp et al (1998) also recommend a need for research to more adequately address the identification of the characteristics of student teachers as they acquire expertise through their teacher education programme. This QLT study explores the processes by which student teachers respond to innovations and increase their pedagogical knowledge. However, this is an area that will require further research into learning to teach and the impact which innovative classrooms have in bringing about understanding of the processes involved.

Freeman and Johnson (1998) argue that teachers in Hong Kong use knowledge about the process and innovative approaches to teaching in a highly interpretative way, depending on social constructs within their schools. They assert that pedagogical knowledge is constantly being reconstructed in a classroom situation, to envelop social, cultural and methodological contexts, an assertion that also requires further study.

Teacher education should, as far as possible, give its student teachers an authentic preparation for their future roles. The QLT strategy demonstrated to those involved, through their roles as learners, *how* to learn and how to motivate their own students to learn, and help to effect the change advocated in the Education Reforms. As this study concludes, it is hoped that the success of the QLT innovation in motivating those student teachers will be recognised and more widely used in the Hong Kong Institute of Education and, subsequently, in the classrooms of Hong Kong. The researcher hopes that his demonstration in this study that a strategy such as QLT can provide the platform on which to build teacher-student, student-student and teacher-teacher relationships which create the quality environment in which teaching and learning can take place, will lead to further research into alternative, collaborative pedagogies.

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Learning the Old Ways

Chinese disillusioned with both communism and capitalism are turning back to the ancient moralism of Confucius

NEWSWEEK MAY 27, 2002

BY PAUL MOONEY

The toddlers clad in satiny Chinese tunics don't seem to be taking the day's lesson to heart. As one 5-year-old girl recites from the Confucian classic, *Discipline of Students*, boys in the back row smack each other with their textbooks. Another girl in the front row breaks into tears. The speaker's mother confesses she's not even sure her daughter understands her lines, but she insists, "My daughter has become much more polite since she started attending classes here." Yuan Shiqui, an official at the National Studies School in the Andingmen district of Beijing, echoes the optimism. "They don't necessarily understand what they're reciting," he says of the preschoolers. "But gradually it will have an impact on their thinking."

That has always been the strategy behind the classic Confucian education: memorize moral precepts in the hope of improving one's character. In the early years of the 20th century, Chinese intellectuals blamed the system for stifling creative thought and weakening the country's ability to resist technologically advanced foreigners. After the communists took over in 1949, Confucius himself became a class enemy; for decades his works were castigated as medieval pap.

In their quest for something to believe in other than the party or money, however, Chinese have begun to rediscover the teachings of their most renowned moralist. Nationwide more than 2 million children are enrolled in programs similar to the one at Andingmen, where they learn Confucian works like the *Three Character Classic* and the *Analects* by heart. Several major universities have set up degree programs in Chinese traditional culture. Confucian temples abandoned for the last half century have been spruced up and now draw crowds of students, burning incense and praying for high marks in their entrance exams. "Even real-estate companies have called to ask us to set up schools in their complexes," says Yang Disheng, vice president of the China Confucius Society. "They thought this would help them sell apartments faster."

The appetite for a return to traditional values-and traditional means of instilling them-is not hard to explain. Chinese haven't believed in communism as an ideology for almost two decades. The so-called money worship of the 1980s has given way, particularly among parents, to an acknowledgment of the social costs of China's economic boom. "Money is not everything. You have to have a concept of family and of relations between people," says Yang. Traditional scholars argue not only that Confucian precepts offer a means of re-establishing firm values in society, but that they are fundamental to the idea of being Chinese. As far back as the 19th century, scholars argued that Confucian values needed to be promoted as a counterbalance to the scientific knowledge being imported from the West. The question, then as now, says Don Wyatt, professor of history at Middlebury College, was, "How do we become modern while retaining our core values, because, after all, that's what has gotten us this far?"

Critics, however, might rephrase the question: how do we become modern if we keep trying to retain our core values? Leaving aside those Chinese who believe that Confucian ideas instill only a feudal mind-set, most education experts in Asia now agree that the problem with the region's schools is too much rote memorization, not too little. Turning to homespun teachings might be attractive-particularly to parents who suffered through the topsy-turvy moral vacuum of the Cultural Revolution. But many education professionals would argue that institutions like the Saint Tao Experimental School, which teach the same core curriculum as state schools but use memorization, are not capable of preparing young Chinese for the country's breathtaking modernizations.

Thus far the government has not taken a stand on the Confucian revival. But authorities obviously want to remain on the right side of a spontaneous and growing popular movement. Last year top leaders supported the opening of a \$25 million research institute devoted to studies of Confucius in his birthplace of Qufu. Wyatt argues that the state has good reason to co-opt the movement: "China discovered long ago that the same values in Confucianism can be used to create docile and obedient

citizens who are in the service of the state," he says. The country's youngest Confucianists may indeed be learning more than they realize.

Confucius as he may have appeared. There are no known likenesses of him apart from verbal description.



OLD HAT: Young Chinese are once again memorizing Confucius (above)

Appendix 2

The Concerns-Based Adoption Model as it might be used in change or innovation situations in our classrooms. (Hord, 1987)

This model illustrates the professional concerns a teacher has when confronted by change or innovation in his/her school or classroom.

- How does change or innovation impact on teachers, students and school environment?
- Teachers become concerned about the change and adopt an attitude, not always positive, to deal with it.
- The impact is seen as a personal one that is addressed in the most appropriate manner at that time.
- It is assumed that the 'concern' will eventually become a 'positive' one which will empower the teacher to make decisions in the best interests of the students.

	Stages of Concern		Expressions of Concern
IMPACT	6	Refocusing	<i>I have some ideas about improvements to the change / innovation that would work even better.</i>
	5	Collaboration	<i>I am concerned about relating how I use the change / innovation and how other teachers are using the innovation.</i>
	4	Consequences	<i>How is my use of the change / innovation affecting student learning?</i>
↑ TASK	3	Management	<i>I seem to be spending all my time getting material ready to introduce the innovation – I have extra workload! How do I manage the change/innovation?</i>
↑ SELF	2	Personal	<i>How will using the innovation affect me?</i>
	1	Informational	<i>I would like to know more about the innovation.</i>
	0	Awareness	<i>I am not concerned about the change or innovation.</i>

The model represents the various stages a teacher will go through in adopting a change in his/her pedagogy.

- **Stage '0':** The teacher becomes aware of impending change, but decides that it will not affect him/her.
- **Stage '1':** The teacher becomes a little concerned and wants to find out more about the change and how it might impact on his/her life.
- **Stage '2':** The teacher then asks, "How will this change affect me directly? Will it result in more work?"
- **Stage '3':** The teacher becomes very concerned about how the change might be implemented: "How much extra work will it really mean for me?"
- **Stage '4':** The teacher becomes concerned about the effect of the change on his/her students: "Am I doing it right? How is my approach to the change affecting my students? Are my students learning from this change?"
- **Stage '5':** The teacher becomes concerned about his/her implementation of the change or innovation: "Is my method similar to that of other teachers doing the same thing? I must investigate and make sure that I am doing it correctly."
- **Stage '6':** The teacher becomes aware of ways to implement/apply the change so that it 'works better' for his/her students: "I am going to introduce my own changes in addition to those I have just implemented. This will help my students."

Appendix 3

The Deming Philosophy for Improving Quality

(First handed out on February 15th 1986 at a meeting of the San Diego based Deming Users' Group – at the U.S. Naval Aviation Depot)

Note: This table is the earlier version of two tables of Deming's philosophy.
The table indicated in Appendix 4 is the later version.

1.	Create constancy of purpose toward improving products and services, allocating resources to provide for long-range needs rather than short-term profitability
2.	Adopt the new philosophy for economic stability by refusing to allow commonly accepted levels of delays, mistakes, defective materials and defective workmanship.
3.	Cease dependence on mass inspection by requiring statistical evidence of built-in quality in both manufacturing and purchasing functions.
4.	Reduce the number of suppliers for the same item by eliminating those that do not qualify with statistical evidence of quality. End the practice of awarding business solely on the basis of price.
5.	Search continually for problems in the system to constantly improve processes.
6.	Institute modern methods of training to make better use of all employees.
7.	Focus supervision on helping people do a better job. Ensure that immediate action is taken on reports of defects, maintenance requirements, poor tools, inadequate operating definitions, or other conditions detrimental to quality.
8.	Encourage effective two-way communication and other means to drive out fear throughout the organisation and help people work more productively.
9.	Break down barriers between departments by encouraging problem solving through teamwork, combining the efforts of people from different areas such as research, design, sales and production.
10.	Eliminate the use of numerical goals, posters, and slogans for the work force that ask for new levels of productivity without providing methods.
11.	Use statistical methods for the continuing improvement of quality and productivity and eliminate work standards that prescribe numerical quotas.
12.	Remove all barriers that inhibit the workers right to pride of workmanship.
13.	Institute a vigorous program of education and retraining to keep up with changes in materials, methods, product design and machinery.
14.	Clearly define top management's permanent commitment to quality and productivity and its obligation to implement all of those principles.

Appendix 4

The Deming Philosophy for Improving Quality (Listed in a brochure in late 1986 distributed at Quality Enhancement Seminars in Santa Monica, California, advertising Deming Seminars in Cincinnati, Ohio and Newport Beach, California. NOTE: This is the updated version used late in 1986 during the enhancement lectures conducted in Cincinnati, and Newport Beach.	
1.	Create constancy of purpose toward improvement of product and service, with the aim of becoming competitive, staying in business and providing jobs.
2.	Adopt the new philosophy. We are in a new economic age. Western Management must awaken to the challenge, must learn their responsibilities and take on leadership for change.
3.	Cease dependence on inspection to achieve quality. Eliminate the need for inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4.	End the practice of awarding business solely on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.
5.	Improve constantly and forever the system of production and service, to improve quality and productivity and thus constantly to decrease costs.
6.	Institute training on the job.
7.	Institute leadership (see point 12). The aim of leadership should be to help people and machines and gadgets to do a better job. Leadership of management is in need of overhaul, as well as leadership of production workers.
8.	Drive out fear, so that everyone may work effectively for the company.
9.	Break down barriers between departments. People in research, design, sales and production must work as a team, to foresee problems of production that may be encountered with the product or service.
10.	Eliminate slogans, exhortations, and targets for the work force asking zero defects and new levels of productivity.
11. a	Eliminate work standards (quotas) on the factory floor. Substitute leadership.
11. b	Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.
12. a	Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.
12. b	Remove barriers that rob the hourly worker of his right and pride of workmanship. This means, inter alia, abolishment of the annual or merit rating and of management by objective, management by numbers.
13.	Institute a vigorous program of education and self-improvement.
14.	Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

Appendix 5

Greenwood and Grant (1994) define Deming's fourteen principles in terms of education quality, namely:

1.	Undertake commitment to constant learning and curriculum development.
2.	Adopt Deming's system of profound knowledge as the major tool of management.
3.	Build in quality in teaching and learning rather than inspecting-in quality.
4.	Develop partnerships within schools and between schools and the communities they serve.
5.	Improve constantly the system in which teaching and learning occur.
6.	Supporting ongoing learning and staff development.
7.	Lead effectively, rather than drive or manipulate.
8.	Promote enjoyment in learning rather than fear of being punished.
9.	Collaborate and develop cross-department teams.
10.	Communicate openly, widely and honestly.
11.	Create an environment that is free from grades and rank ordering.
12.	Encourage students to take pride in their work.
13.	Develop the whole person, including the students and staff.
14.	Negotiate learning that brings a quality experience.

There are also five statements made by Burrage *et al.* (1993) about quality development building and self-evaluation, namely:

1.	Quality development is a process of developing planning.
2.	Quality development centres on systematic monitoring and evaluation.
3.	The type of evaluation central to quality development is self-evaluation.
4.	The kind of self-evaluation central to quality development is supported self-evaluation.
5.	Supported self-evaluation serves the purposes of proving, improving and learning.

Appendix 6

Morrison's definition of Quality:

1.	Excellence	19.	Ensuring effective delivery.
2.	A product service that is distinctive and that confers status on owner (i.e. high quality).	20.	Providing effective support and development of staff capabilities.
3.	Conformance to specification or standards.	21.	Initiating, designing and undertaking research projects.
4.	Fitness for purpose.	22.	Effective recruitment and staff stability.
5.	Effectiveness in achieving institutional goals.	23.	Managing employees' welfare.
6.	Meeting customer's stated or implied needs and specifications.	24.	Effective communication (internal and external).
7.	Understanding what the customer values and needs – proof of needs.	25.	Effective resource management.
8.	Providing a highly reliable product/service.	26.	Effective information systems.
9.	Improving the specification of a product/service – product development.	27.	Serviceability.
10.	Being better than competitors.	28.	Maintainability/serviceability.
11.	Identifying and excising weaknesses and failures – identifying root causes.	29.	Meeting minimum standards of acceptability.
12.	Accentuating the positive, eliminating the negative, i.e. controlling the process and the product.	30.	Adaptability.
13.	Identifying and meeting critical success factors.	31.	Availability and convenience.
14.	High customer/consumer satisfaction – delighting customers.	32.	Fitness for purpose.
15.	High employee satisfaction.	33.	Fitness of purpose.
16.	Managing a strategic and period plan.	34.	Durability.
17.	Managing general finance.	35.	Up-to-dateness.
18.	Allocating funds effectively.	36.	

(Morrison, 1998: 58)

Appendix 7

TeamUP Model for Working Teams
Team Technologies Inc. (1992)

The teamUP philosophy is primarily a tool for building working teams in a commercial or industrial setting. It focuses on the two main elements of teams and teaming i.e.

- (a) building the team with appropriate membership
- (b) the function and reporting of the findings of the team.

The teamUP model is demonstrated in the published documentation in flowchart format, allowing a wide audience to examine and form prognosis for workable teams. The system is designed primarily as a commercial package that is ideal in an industrial or business setting. The major objective is demonstrated in the flowcharts which provides for each step in the process of setting up a working team. The flowcharts are referred to as the LogFrame which targets the main stakeholders in the enterprise, ensuring that the correct personnel or managers are included in the working team.

TeamUP suggests appropriate positions for each member of the team and how decision-making can be achieved in a collaborative and mutually beneficial way. In the case of British Aid Projects in the 1990's, the teamUP model brought together the British project experts and the pivotal personnel from the host governments, their ministry, or departmental representatives, reporting directly to both the government Minister responsible in the host country and the Head of British Aid in that country.

Whilst usually a commercially appropriate product, the teamUP model can be adapted for use in an educational setting.

The importance of the TeamUP model lies in its deliberate attempt to give all stakeholders an equal voice in the functioning or decision-making of the team.

Notes:

- (a) DfID, the British Government's Department for International Development, made extensive use of the teamUP philosophy in the 1990's in ALL of their overseas aid projects to create closer partnerships with recipient governments. This applied to both non-education and education projects.
- (b) Copyright restrictions prevent the researcher illustrating the LogFrame and flowcharts associated with this team building model.

Appendix 8

FasTEAM Process for Using Teams

Total Quality Innovations Inc.,
Author: Hardwicke, Susan B. (1994)

FasTEAM is an approach to using teams which takes a logistical viewpoint, describing and illustrating processes and stages in setting up, operating and reporting as a team. The stages are explained as flowcharts which direct the teams from stage to stage and indicate at what point to report results and to whom.

Flexibility in ideas and approaches to problem-solving is the basis for the teams working in a self-directed way, effectively bypassing the restrictive 'gatekeepers' or supervisors who channeled selected information previously.

The FasTEAM cycle purports to reduce time-wasting - a naturally occurring phenomenon as teams of people form into an operational group - by as much as 30%, by laying down guidelines for forming and operating teams.

FasTEAM is about process improvement through a disciplined and structured approach to teaming, overcoming many of the difficulties encountered, including resistance to working as a team member.

FasTEAM provides a detailed roadmap for those setting up teams, providing suggestions to overcome any tendencies in members to reject working in a team.

FasTEAM materials support the cyclical nature of process improvement, recognising that all teams have to be fine-tuned as they progress through the cycle to eliminate disruptive tendencies.

FasTEAM supports the philosophical idea of teams versus groups, a distinction which is critical in getting the most from the teams.

Teams:

- have a common sense of purpose
- perform work collectively
- make major decisions by consensus, not by an individual's authority
- have social aspect and cohesion which creates identity
- make effective use of individual strengths, so that the "whole is greater than the sum of its parts".

FasTEAM provides structure and methodology that can be easily followed and laid out in advance. It suggests role assignments and time limitations, assisting team meetings to work within time restrictions.

Whilst FasTEAM is set in a commercial world, its ideas and framework sit comfortably in an educational setting and provide guidance for the Quality Learning Teams pedagogy.

Note: Copyright restrictions prevent the researcher illustrating the FasTEAM flowcharts associated with this team building model.

Appendix 9

Morrison's Team Make-Up

The following is a list of suggested team_empowerment strategies (Morrison, 1998: 165):

1. Provide team-building time.
2. Ensure that the team knows and agrees to how it will work.
3. Ensure a common brief.
4. Ensure that the team knows what its purpose is – what is it trying to do.
5. Ensure equal status of members - avoid hierarchies.
6. Ensure that all ideas have equal and fair consideration.
7. Provide opportunities for people to speak freely.
8. Provide opportunities for members to work together on a common focus.
9. Ensure effective communication – within and between teams.
10. Develop a climate of trust.
11. Ensure the necessary continuing professional development.
12. Involve everybody in an identifiable task and role.
13. Ensure that members know each other's tasks and roles.
14. Ensure that everybody has the opportunity to contribute.
15. Provide opportunities for members to experience success and to develop their enthusiasm.
16. Increase members' personal input and their access to a broad range of people.
17. Avoid the stifling of creative individualism.
18. Avoid assessing / evaluating / judging people / projects / tasks too soon.
19. Clarify and agree how decisions will be reached.
20. Keep to agreed time frames.
21. Ensure that the emphasis is on the solution of problems rather than on individual personalities and agendas.
22. Develop a climate of support.
23. Be prepared to change structures and practices through agreed strategies.

The evaluation of the effectiveness of teams (Katzenbach and Smith, 1993b) can be identified by the following principles and activities:

- Establish a sense of urgency.
- Clarify the direction in which the organisation is moving.
- Select team membership on the basis of skill and expertise rather than personality.
- Ensure that the first meetings of the team are highly organised and productive.
- Ensure that each meeting produces action.
- Establish clear roles of procedure and behaviour.
- Identify some short-term tasks and goals that will produce immediate results/rewards and returns.
- Ensure that the group is challenged regularly with the provision of new information.
- Ensure that the group spends a lot of time together as a group.
- Use positive feedback, give public recognition and rewards.

Appendix 10

Maslow's Hierarchy of Basic Needs

(As applied to the Classroom)

Help students feel good about themselves and they may learn much more effectively.

Self-actualisation

- be enthusiastic and supportive
- encourage projects and plans
- be positive about the future
- promote optimism

Self-esteem (Pride)

- encourage independence
- praise when appropriate
- welcome ideas
- treat students with dignity

Love & Belonging (Feeling accepted)

- show that you care
- promote interaction between students
- promote a cohesive class climate

Safety and Shelter (Safe from harm)

- maintain confidentiality / privacy as necessary
- treat students fairly
- observe and chart accurate information
- follow safety rules when necessary

Physical (Comfort requirements)

- provide adequate breaks
- ensure comfort
- arrange seating according to needs
- be alert to heating / cooling and ventilation requirements

Adapted from "A practical guide to teaching / training & learning"
Ian Reece & Stephen Walker (1994) Business Education Publishers

Abraham Maslow was amongst the first to look closely at the motivation of students and how certain factors could affect their performance. He also emphasised many strategies for dealing with individuals so that they were motivated on a 'self' basis.)

Appendix 11

Professional Studies IDS Module

Student Details:

Please provide a recent digital photograph

Male ☐ / Female ☐

NAME (English):-

ADDRESS:-

.....

.....

.....

Telephone (home) :

Mobile:

E-mail address (I.Ed.):-

(Home):-

How many members are there in your family?

What are the occupations of your parents?

Do you have any relatives who are teachers? **What relative?**

Institute of Education Information:

Student ID # **Date of Birth:** **Age now:**yrs

Major #1 **Minor #2**

PERSONAL STATEMENT: (Briefly explain why you decided to become a teacher)

When did you leave school?

What are your qualifications?

Did you apply to other universities?

Which ones?

What band secondary school did you attend?

Appendix 12

Student Pre-Intervention Questionnaire - 'Learning Teams'

Study Area:	Professional Studies	Module Title:	
Date:	What Course are you attending:		Male: <input type="radio"/>
Age:	2SE1 <input type="radio"/>	2SC1 <input type="radio"/>	3SE2 <input type="radio"/> 3SC2 <input type="radio"/> Female: <input type="radio"/>

<p>Please indicate your reaction to the statements below by completely filling in one of the circles as follows: ● do it like this ○ not like this</p>					
Scale:	1	2	3	4	5
	←				→
	SA	A	N	D	SD
	(Strongly Agree)	(Agree)	(Neutral)	(Disagree)	(Strongly Disagree)

		SA	A	N	D	SD
1.	I think that working in groups will be useful in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	I will learn more course content by working in a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	I will learn more about my colleagues by working with them in a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	I will do a better presentation as a result of working with my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	My reflection skills will improve as a result of talking with my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	My grade for my course portfolio will be better if I work with my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	I understand why group work is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	I like to work in a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	I think that my English skills will improve because my group will work together on the presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	I will use group work when I am a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	I think that I will gain confidence and self-esteem by working in a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

List three (3) things you think that you might like BEST about working in a group

- 1.
- 2.
- 3.

List three (3) things you think that you might like LEAST about working in a group

- 1.
- 2.
- 3.

Please provide the following additional information

<p>A. Why did you choose to attend the I.Ed?</p> <ul style="list-style-type: none">1. Teaching first choice. <input type="radio"/>2. Could not get University place. <input type="radio"/>3. Family pressure. <input type="radio"/>4. Job Security. <input type="radio"/>5. Reasonable salary. <input type="radio"/>	<p>B. What qualifications do you have?</p> <ul style="list-style-type: none">1. HKALE <input type="radio"/>2. HKCEE <input type="radio"/>3. Vocational or Other Qualification <input type="radio"/>4. University Degree <input type="radio"/>
<p>C. What is your Country of origin?</p> <ul style="list-style-type: none">1. HK. <input type="radio"/>2. Mainland China. <input type="radio"/>3. Other Asian Country. <input type="radio"/>4. Europe. <input type="radio"/>5. North America. <input type="radio"/>	<p>D. What Education Institute did you attend prior to your attendance at the I.Ed?</p> <ul style="list-style-type: none">1. Band 1-2 School. <input type="radio"/>2. Band 3-4 School. <input type="radio"/>3. Band 5 School. <input type="radio"/>4. Technical / Vocational School. <input type="radio"/>5. International School. <input type="radio"/>

Thank you for participating in this survey.

Appendix 13

Student Post-Module Intervention Questionnaire - 'Learning Teams'

Study Area:	Professional Studies	Module Title:			
Date:	What Course are you attending:				Male: <input type="radio"/>
Age:	2SE1 <input type="radio"/>	2SC1 <input type="radio"/>	3SE2 <input type="radio"/>	3SC2 <input type="radio"/>	Female: <input type="radio"/>

<p>Please indicate your reaction to the statements below by completely filling in one of the circles as follows: ● do it like this ○ not like this</p>				
<p>Scale:</p> <p>1</p> <p>←</p> <p>SA</p> <p>(Strongly Agree)</p>	<p>2</p> <p>←</p> <p>A</p> <p>(Agree)</p>	<p>3</p> <p>←</p> <p>N</p> <p>(Neutral)</p>	<p>4</p> <p>←</p> <p>D</p> <p>(Disagree)</p>	<p>5</p> <p>←</p> <p>SD</p> <p>(Strongly Disagree)</p>

	SA	A	N	D	SD
1. I think that working in a team was useful in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I have learned more course content by working in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I have learned more about my colleagues by working with them in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. My presentation skills have improved as a result of working in a Learning Team with my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. My reflection skills have improved as a result of talking and working with my Learning Team members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. My grade for my course portfolio is better because I worked closely with my Learning Team members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I understand why team work is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I liked working in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I think my English skills have improved because my Learning Team worked together on class presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I will use team work when I am a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I think I have gained more self-confidence and self-esteem by working in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

List three (3) things you think that you liked **BEST** about working in a team

- 1.
- 2.
- 3.

List three (3) things you think that you liked **LEAST** about working in a team

- 1.
- 2.
- 3.

Please provide the following additional information

<p>A. Why did you choose to attend the I.Ed?</p> <ul style="list-style-type: none">1. Teaching first choice. <input type="radio"/>2. Could not get University place. <input type="radio"/>3. Family pressure. <input type="radio"/>4. Job Security. <input type="radio"/>5. Reasonable salary. <input type="radio"/>	<p>B. What qualifications do you have?</p> <ul style="list-style-type: none">1. HKALE <input type="radio"/>2. HKCEE <input type="radio"/>3. Vocational or Other Qualification <input type="radio"/>4. University Degree <input type="radio"/>
<p>C. What is your Country of origin?</p> <ul style="list-style-type: none">1. HK. <input type="radio"/>2. Mainland China. <input type="radio"/>3. Other Asian Country. <input type="radio"/>4. Europe. <input type="radio"/>5. North America. <input type="radio"/>	<p>D. What Education Institute did you attend prior to your attendance at the I.Ed?</p> <ul style="list-style-type: none">1. Band 1-2 School. <input type="radio"/>2. Band 3-4 School. <input type="radio"/>3. Band 5 School. <input type="radio"/>4. Technical / Vocational School. <input type="radio"/>5. International School. <input type="radio"/>

Thank you for participating in this survey.

Appendix 14

End of Course Intervention Questionnaire - 'Learning Teams'

Course Title:		
Date:	What Course were you attending:	Male: <input type="radio"/>
Age:	2SE1 <input type="radio"/> \ 2SC1 <input type="radio"/> \ 3SE2 <input type="radio"/> \ 3SC2 <input type="radio"/>	Female: <input type="radio"/>

Please indicate your reaction to the statements below by completely filling in one of the circles as follows: ● do it like this ○ not like this					
Scale:	1 ← ——— ——— SA (Strongly Agree)	2 ——— ——— A (Agree)	3 ——— ——— N (Neutral)	4 ——— ——— D (Disagree)	5 ——— ——— → SD (Strongly Disagree)

		SA	A	N	D	SD
1.	I think that working in a Learning Team was useful during the course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	I think that I have learned more by working in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	I have learned more about my colleagues by working with them in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	My presentation skills improved as a result of working in a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	My reflection skills improved as a result of talking and working as a part of a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	My grades were better because I worked as a part of a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	I understand why team work is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	I liked working as a member of a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	I think my English skills improved because my Learning Team worked together on presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	I will use Learning Teams when I graduate and become a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	I think that I have gained more confidence and self-esteem by working as a part of a Learning Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

List three (3) things you think that you liked BEST about working in a Learning Team

1.

2.

3.

List three (3) things you think that you liked LEAST about working in a Learning Team

1.

2.

3.

Please provide the following additional information

A. Why did you choose to attend the I.Ed?

- 1. Teaching first choice. ☐
- 2. Could not get University place. ☐
- 3. Family pressure. ☐
- 4. Job Security. ☐
- 5. Reasonable salary. ☐

B. What qualifications do you have?

- 1. HKALE ☐
- 2. HKCEE ☐
- 3. Vocational or Other Qualification ☐
- 4. University Degree ☐

C. What is your Country of origin?

- 1. HK. ☐
- 2. Mainland China. ☐
- 3. Other Asian Country. ☐
- 4. Europe. ☐
- 5. North America. ☐

D. What Education Institute did you attend prior to your attendance at the I.Ed?

- 1. Band 1-2 School. ☐
- 2. Band 3-4 School. ☐
- 3. Band 5 School. ☐
- 4. Technical / Vocational School. ☐
- 5. International School. ☐

Thank you for participating in this survey.

Appendix 15

Student Post-Module Non-Intervention - 'Team Work'

Study Area: Professional Studies		Module Title:		
Date:	What Course are you attending:			Male: <input type="radio"/>
Age:	2SE1 <input type="radio"/>	2SC1 <input type="radio"/>	3SE2 <input type="radio"/>	3SC2 <input type="radio"/>
				Female: <input type="radio"/>

Note: Your assistance and participation in this survey is much appreciated and will add to future possible teaching strategies used for your and other courses offered at the Institute. Thank you.

<p>Please indicate your reaction to the statements below by completely filling in one of the circles as follows: ● do it like this ○ not like this</p>				
<p>← — — — — —</p> <p>SA (Strongly Agree)</p>	<p>— — — — —</p> <p>A (Agree)</p>	<p>— — — — —</p> <p>N (Neutral)</p>	<p>— — — — —</p> <p>D (Disagree)</p>	<p>— — — — — →</p> <p>SD (Strongly Disagree)</p>

All information will be treated with strict confidentiality.

	SA	A	N	D	SD
1. I think that working in a Learning Team was, or might have been, useful in classes for this module.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I have, or might have learned, more course content by working in a Learning Team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I have or might have learnt more about my colleagues by working with them in a Learning Team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. My presentation skills have or might have improved as a result of working more closely with my classmates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. My reflection skills have or might have improved as a result of talking and working with my classmates in a Learning Team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The grade for my course portfolio is better or could have been because or if I worked closely with my classmates as a part of a Learning Team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think that I understand why teamwork is important in the learning process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I like or would have liked to have worked in a Learning Team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I think my English skills have or might have improved as a result of working together as a Learning Team during class presentations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I will or might use student-learning teams when I am a teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I think I have or might have gained more self-confidence and self-esteem by working in a Learning Team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

List three (3) things you think that you liked BEST about working in a learning team

- 1.
- 2.
- 3.

List three (3) things you think that you liked LEAST about working in a learning team

- 1.
- 2.
- 3.

Please provide the following additional information

<p>A. Why did you choose to attend the I.Ed?</p> <ul style="list-style-type: none">1. Teaching first choice. <input type="radio"/>2. Could not get University place. <input type="radio"/>3. Family pressure. <input type="radio"/>4. Job Security. <input type="radio"/>5. Reasonable salary. <input type="radio"/>	<p>B. What qualifications do you have?</p> <ul style="list-style-type: none">1. HKALE <input type="radio"/>2. HKCEE <input type="radio"/>3. Vocational or Other Qualification <input type="radio"/>4. University Degree <input type="radio"/>
<p>C. What is your Country of origin?</p> <ul style="list-style-type: none">1. HK. <input type="radio"/>2. Mainland China. <input type="radio"/>3. Other Asian Country. <input type="radio"/>4. Europe. <input type="radio"/>5. North America. <input type="radio"/>	<p>D. What Education Institute did you attend prior to your attendance at the I.Ed?</p> <ul style="list-style-type: none">1. Band 1-2 School. <input type="radio"/>2. Band 3-4 School. <input type="radio"/>3. Band 5 School. <input type="radio"/>4. Technical / Vocational School. <input type="radio"/>5. International School. <input type="radio"/>

Thank you for participating in this survey.

Appendix 16

Intervention Teaching Team Interview Schedule

Name of Staff Member:				
Date:	How long have you been teaching in HK?	How long have you been involved in teacher education?	What is your country of origin or spent most of your teaching career?	Male: <input type="radio"/>
Teaching Experience: Yrs	Yrs	Yrs		Female: <input type="radio"/>

The combination of using the strategy of Quality Learning Teams and Portfolio Assessment has been conducted throughout this academic year. In order to determine the usefulness of this innovation, we would be grateful if you would answer the following questions as a part of the research project on "Quality Learning Teams".

1. Having used Quality Learning Teams during the past year how useful do you think the strategy was for the IDS Module?

2. How did you determine the make-up of the students in your quality learning teams?

3. Why do you think it was necessary to introduce a strategy using Quality Learning Teams?

4. How did the Quality Learning Team strategy work in your classroom?

5. Do you consider that you received sufficient information and induction on the use of Quality Learning Teams?

6. How would you describe the term "QUALITY" in quality learning teams?

7. What was difficult about the content of the module that prompted the use of Quality Learning Teams in your classroom?

8. Did you or the class encounter any particular problems when using the Quality Learning Team strategy?

9. Do you think that the students enjoyed working in small learning teams?

10. Did you and the students find using quality learning teams merged with the use of portfolio assessment?

11. Do you think that the students learned more using Quality Learning Teams and how was this apparent?

12 Do you think that the Quality Learning Teams strategy assisted with language comprehension and did it improve the students' use of English?

List things you think that you liked **BEST** about the strategy

1

2

3

List things you liked **LEAST** about the strategy

1

2

3

Any other comments:

Thank you for participating in this survey.

Non-Intervention Teaching Team Interview Schedule
Survey about the use of co-operative and collaborative learning that took place using learning groups or teams for the Education Modules

Name of Staff Member:				
Date:	How long have you been teaching in HK?	How long have you been involved in teacher education?	What is your country of origin or spent most of your teaching career?	Male: <input type="radio"/>
Teaching Experience: Yrs	Yrs	Yrs		Female: <input type="radio"/>

In order to determine the usefulness of using learning groups or teams in a collaborative or co-operative way as a part of your teaching strategy, we would be grateful if you would assist the research project by answering the following questions

1.

In your normal teaching you will probably have used group learning strategies in your classes during the past year; did you think group work was useful for teaching the education modules?
2.

How did you determine the members of each learning group or team in your classroom?
3.

Why did you use a group or team learning strategy in your classroom?
4.

How successful do you consider the group learning strategy was in your classroom?
5.

Do you consider that you successfully used learning groups or teams in your classroom?

6. How would you describe a learning group or team?

7. Was the content of the two education modules suitable for using learning groups or teams in your classroom?

8. Did you have any particular problems with your class when using learning groups or teams?

9. Do you think that the students enjoyed working together as a learning group or team in your classroom?

10. Did you and your students find using group work useful in preparing for portfolio assessment in the education modules?

11. Do you think that the students might have learned more, or gained a deeper understanding, by using learning groups or teams? Why, or why not?

12 Do you think that a group learning strategy assisted with language comprehension?

13 Do you think that using groups or teams helped to improve student self-confidence and self-esteem?

List things that you liked **BEST** about the strategy

1

2

3

List things you liked **LEAST** about the strategy

1

2

3

Any other comments:

Thank you for participating in this survey.

Appendix 18

Student Interview Schedule - Post Module Intervention

Course Title:		
Date:	What Course were you attending: 2SE 2SC 3SE 3SC	Male:
Age:		Female:

Interview Questions:
We would like you to answer and comment upon the following questions on the use of teams and on being a member of a learning team.
Your views are very important for future teaching strategies.

1.

Do you think that working in a small learning team in this module was useful?

SA A N D SD

☐ ☐ ☐ ☐ ☐
2.

Do you think that you learned more, or had a greater understanding of module content, by working as a member of a learning team in this module?

☐ ☐ ☐ ☐ ☐
3.

Do you think that you have learned more about your learning team colleagues by working in a team during this module?

☐ ☐ ☐ ☐ ☐
4.

Do you think that your presentation skills improved as a result of working in a learning team during this module?

☐ ☐ ☐ ☐ ☐

- | | SA | A | N | D | SD |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5. Do you think that your reflection skills improved as a result of working as a part of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Do you think that your grades were better because you worked as a part of a learning team in this module? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Do you think teamwork is important in the student learning process? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Did you like working as a member of a learning team throughout this module? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Do you think that your English skills might have improved as a result of having to work in a learning team and on presentations with your team members? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Will you try to use learning teams with your students when you graduate and become a teacher? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | | SA | A | N | D | SD |
|----|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 11 | Do you think that you have gained more confidence and self-esteem by working as a part of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

What did you like **BEST** about working in a team?

1.

2.

3.

What did you like **LEAST** about working in a learning team?

1.

2.

3.

Thank you for participating in this interview survey.

Appendix 19

Student Interview Schedule - End-of-Course Intervention - 'Team Work'

Course Title:		
Date:	What Course were you attending: 2SE <input type="radio"/> 2SC <input type="radio"/> 3SE <input type="radio"/> 3SC <input type="radio"/>	Male: <input type="radio"/>
Age:		Female: <input type="radio"/>

Interview Questions:

We would like you to answer and comment upon the following questions on the use of teams and on being a member of a learning team.

Your views are very important for future teaching strategies.

- | | | SA | A | N | D | SD |
|----|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. | Do you think that working in a small learning team in some of your modules was useful during the course? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. | Do you think that you learned more, or had a greater understanding, by working as a member of a learning team in some of your modules? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. | Do you think that you have learned more about your learning team colleagues by working in teams during your course of study? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. | Do you think that your presentation skills improved as a result of working in learning teams during your course? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | | SA | A | N | D | SD |
|----|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5. | Do you think that your reflection skills improved as a result of working as a part of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. | Do you think that your grades were better because you worked as a part of a learning team in some of your modules? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. | Do you think that team work is important in the student learning process? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. | Did you like working as a member of a learning team throughout your course and in any of your modules specifically? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. | Do you think that your English skills have improved as a result of having to work as a member of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10 | Will you try to use learning teams with your students when you graduate and become a teacher? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

		SA	A	N	D	SD
11	Do you think that you have gained more confidence and self-esteem by working as a part of a learning team?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What did you like **BEST** about working in a team?

1.

2.

3.

What did you **LEAST** like about working in a learning team?

1.

2.

3.

Thank you for participating in this interview survey.

Appendix 20

Student Interview Schedule - Post Module Non-Intervention

Course Title:		
Date:	What Course were you attending: 2SE 2SC 3SE 3SC	Male:
Age:		Female:

Interview Questions:
We would like you to answer and comment upon the following questions on the use of teams and on being a member of a learning team.
Your views are very important for future teaching strategies.

1.

Do you think that working in a small learning team might have been useful during the course?

SA A N D SD

☐ ☐ ☐ ☐ ☐
2.

Do you think that you might have learned more or had a greater understanding of the module by working in a team?

☐ ☐ ☐ ☐ ☐
3.

Do you think that you might have learned more about your colleagues by working in teams during your course of study?

☐ ☐ ☐ ☐ ☐
4.

Do you think that your presentation skills might have been improved as a result of working in learning teams?

☐ ☐ ☐ ☐ ☐

- | | | SA | A | N | D | SD |
|-----|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5. | Do you think that your reflection skills might have been improved as a result of working as part of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. | Do you think that your grades might have better if you had worked as a part of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. | Do you think that working in a team is important in the student learning process? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. | Do you think that you would have liked to have worked as a member of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. | Do you think that your English skills might have improved if you had worked as a member of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. | Do you think that you might try to use learning teams in your classroom after you graduate and become a teacher? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

		SA	A	N	D	SD
11	Do you think that you might have gained more confidence and self-esteem if you worked as a part of a learning team?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What do you think that you would have liked BEST about working in a team?

1.

2.

3.

What do you think that you would have liked LEAST about working in a learning team?

1.

2.

3.

Thank you for participating in this interview survey.

Graduate (Intervention) Interview Schedule - 'Team Work'

Introduction

You were a student teacher who used Quality learning Teams while studying for the Modules Classroom Teaching Skills and Instructional Design and Strategies for Effective Teaching. You have now been in full-time teaching for at least one year and we would like to ask you about your teaching and whether or not you have been using the Quality learning Team strategy at your school.

Interview Questions:

Could you please supply us with your opinions of using learning teams now that you have had time for reflection on learning teams and their usefulness in the classroom since graduating from the I.Ed. Would you please consider the following statements regarding the use of learning teams.

Your views are very important for future teaching strategies and research at the I.Ed.

- | | SA | A | N | D | SD |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Consider your experience of QLTs for the CTS and IDS modules. Was working in a learning team useful during your certificate course? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Some time has passed since you were a member of a QLT. As you reflect on that experience, do you think that you might have learned more or gained a greater understanding of the learning materials by working in a team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Do you think that while you were a part of a QLT you learned more about your learning team colleagues? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Do you consider that your presentation skills might have been better as a result of working in learning teams for the CTS and IDS modules? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | SA | A | N | D | SD |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5. Thinking back on the time when you were in a QLT, do you think that your reflection skills were better as a result of talking and working as a part of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Do you think that being a part of a QLT helped to improve your grades? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Some time has passed since you were a part of a QLT. Do you consider that working in a team work is important in the student learning process? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. In retrospect, and in the light of your experience, did you like working as a member of a learning team? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Would you say that working in learning teams helped to improve your English skills? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Have you used or tried to use learning teams with your students? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- | | | SA | A | N | D | SD |
|----|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 11 | Do you think that your QLT experience gave you more confidence and self-esteem? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

What do you like BEST about working in a team for yourself and for your students?

1.

2.

3.

What do you like LEAST about working in a learning team yourself and what do your students dislike when they work in a learning team?

1.

2.

3.

Would you like to discuss anything else regarding the use of learning teams e.g. your school's attitude to a different pedagogy, or the attitudes of your teaching colleagues towards the use of learning teams?

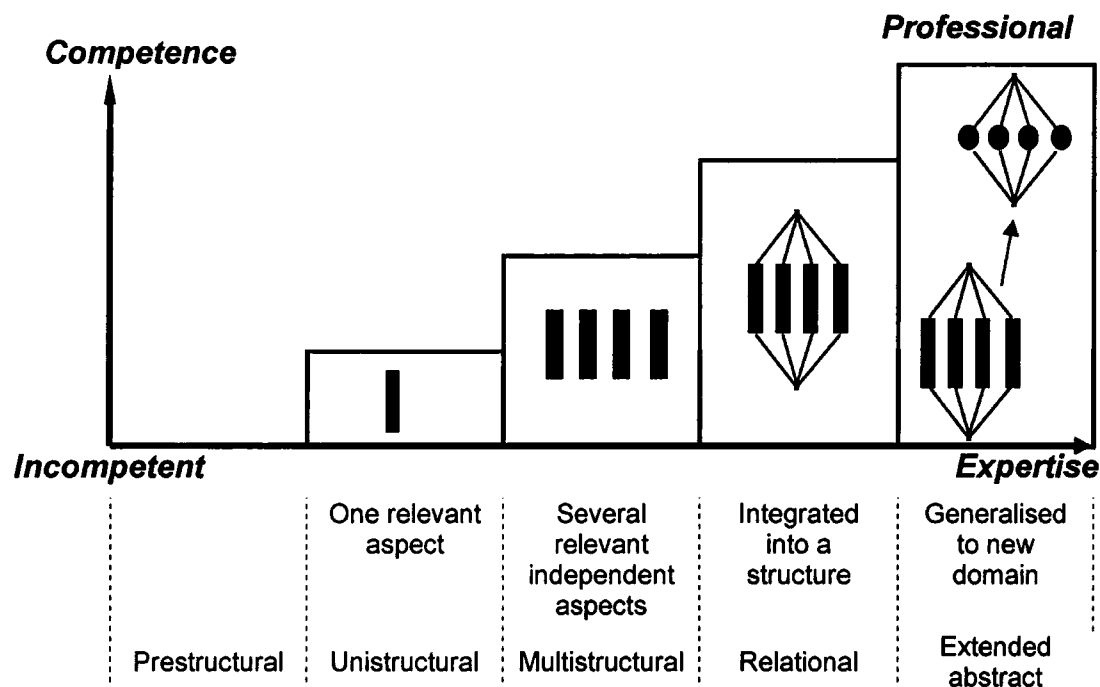
Thank you for participating in this interview survey.

Appendix 22

Information on Assessment Performance Using the SOLO Taxonomy

Constructivism has important implications for assessment. In particular, grading should be holistic, the assessment performance being evaluated as a whole.

The diagram below shows the *Structure of the Observed Learning Outcome*, the **SOLO** Taxonomy. It represents a systematic way of describing a learner's performance from low-level understanding to complete understanding.



(Adapted from John Biggs and David Watkins (1995) "Classroom Learning: Educational Psychology for the Asian Teacher")

The **SOLO** taxonomy can be used in assessment to categorise students' open-ended responses to an essay question, or to order subitems in an objective test format. In the first case, the marker has to recognise the **SOLO** structure inherent in a particular response, and then use that structure in determining a grade. The five letter grades 'A', 'B', 'C', 'D', and 'F' can be used to correspond generally to the five **SOLO** categories. (As a refinement, a subscale could be used within categories to show how well a particular response meets that category.) A student's grade of 'B' or 'C' then tells a student quite clearly how good the response is and, by implication, what is needed to improve it. The objective test format of ordered outcomes is more difficult to construct, but easier to use in practice. Both systems are based on qualitative assumptions and are thus likely to have positive backwash effects on learning and teaching.

The different levels of the **SOLO** structure are:

1. **Pre-structural:** the task is not completed appropriately and there is little understanding. The student goes about the task in a very simplistic, distracted, or misled way.
2. **Uni-structural:** first one and then several aspects of the task are picked up, but there is little attempt to bring them together. They are treated as separate items. Basically picks up one relevant aspect.
3. **Multi-structural:** several aspects of the task are picked up, but there is little attempt to bring them together. They are treated as separate items.
4. **Relational:** the different aspects of the task are brought together into one global concept and there is a fair understanding. An adequate understanding of the topic.
5. **Extended Abstract:** the understanding of the global whole is used in formulating new understanding under different conditions or new topic area.

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THE HONG KONG INSTITUTE OF EDUCATION
SCHOOL OF CREATIVE ARTS, SCIENCE AND TECHNOLOGY

MODULE OUTLINE (1997/1998)
Classroom Teaching Skills (SC/E -PSP003-2)

1. **Course Title:**
Certificate in Secondary Education (Chinese/English) Course (Two-Year Full-time)
2. **Academic Year:** 2000 - 2001
3. **Course Code(s):** A2C007
4. **Mode of Study:** Full-time
5. **Domain:** Professional Studies
6. **Subject Area:** Education
7. **Department(s):** Curriculum and Instruction
8. **Year Group:** Year 1 (2SC/E1)
9. **Semester(s):** First
10. **Module Title:** Classroom Teaching Skills
11. **Module Code:** SE/C-PSP003-2
12. **Status:** Core
13. **Credit Point(s):** Two
14. **Pre-requisite Module(s):** Nil
15. **Module Co-ordinator(s):**
16. **Module Synopsis:**
This module is designed to introduce students to the principles of lesson planning and the importance of the purpose and structure of teaching and learning activities. Questioning skills will be developed and students will be provided with strategies in teaching and classroom management.
17. **Module Objectives:**
To enable students to
 - a. apply communication principles
 - b. demonstrate presentation skills
 - c. describe the structure and the components of lesson plans
 - d. develop detailed lesson plans and schemes of works (including the use of various media appropriate to learning outcomes)
 - e. evaluate lesson plans
 - f. demonstrate question skills
 - g. describe various teaching strategies (such as expository, discussion, inquiry, discovery etc.) and evaluate their importance.
 - h. suggest reasons for misbehaviour.
 - i. demonstrate skills in classroom management.
18. **Module Content:**
 - a. Presentation Skills; giving clear instructions and application of communication principles
 - b. Lesson Planning; components and alternative structure, schemes of work, evaluation of lesson plans
 - c. Questioning Skills; question design, practice skill development

- d. Teaching Strategies; e.g. expository, discussion, inquiry, discovery, use of groups, teacher-directed, teacher-centred, student-centred, student independent, student activities.
- e. Classroom Management: on rash behaviour, reasons for misbehaviour, classroom management strategies.

Total: 30 hours

19. Teaching Methods:

Students will attend practical workshop sessions, participate in lectures, demonstrations, tutorials, and group discussions.

20. Assessment:

Student performance in this module will be assessed through participation in class, group and individual presentations and individual portfolios. 100 %

21. Required Texts:

Cooper, J. M. (Ed.) (1999). *Classroom Teaching Skills*. Boston: Houghton Mifflin Co.

Pang, K. C. (1992). *Lesson Planning*. Hong Kong: Longman Group (FE) Ltd.

Sweeting, T. (1992). *Questioning*. Hong Kong: Longman Group (FE) Ltd.

Wong, A. K. C., Au-Yeung, Y. C., & McClelland, J. A. G. (1992). *Classroom*

Management. Hong Kong: Longman Group (FE) Ltd.

22. Recommended Reading:

Nil

23. Other Information (If any):

Nil

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**THE HONG KONG INSTITUTE OF EDUCATION
SCHOOL OF CREATIVE ARTS, SCIENCE AND TECHNOLOGY**

MODULE OUTLINE

Instructional Design and Strategies for Effective Teaching (IDS) (SC/E – PSP004-2)

1. **Course Title:**
Certificate in Secondary Education (Chinese/English) Course (Two-Year Full-time)
2. **Academic Year:** 1997 - 1998
3. **Course Code(s):** A2C007
4. **Mode of Study:** Full-time
5. **Domain:** Professional Studies
6. **Subject Area:** Education
7. **Department(s):** Curriculum and Instruction
8. **Year Group:** Year 1 (2SC1/2SE1)
9. **Semester(s):** Second
10. **Module Title:** Instructional Design and Strategies for Effective Teaching (IDS)
11. **Module Code:** SC/E-PSP004-2
12. **Status:** Core
13. **Credit Point(s):** Two
14. **Pre-requisite Module(s):** Nil
15. **Module Coordinator:**
16. **Module Synopsis:**
In this module, student teachers are provided with information and concepts that are essential to making decisions about teaching and for developing a personal philosophy of teaching. Student teachers are encouraged to recognise and reflect on the complexity of teaching in general, and, specifically, in Hong Kong schools. Specific topics addressed will include types of knowledge, characteristics of learning, teaching and assessment.
17. **Module Objectives:**
To enable students to:
 - a. present a personal philosophy, goals and core values of teaching
 - b. present a relevant, consistent rationale for educational objectives and teaching and learning approaches
 - c. align content, teaching strategies and assessment
 - d. evaluate own teaching for improvement purposes
 - e. describe contemporary teaching strategies and assessment strategies
 - f. use appropriate teaching strategies to meet the needs of students with diverse talents and interests

18. Module Content:

- a. Teaching goals and objectives, alignment of objectives, content, teaching strategies and assessment
- b. Nature of learning, learning styles and variations
- c. Contemporary teaching strategies
- d. Assessment strategies

Total: 30 hours

19. Teaching Methods:

Students will attend sessions, participate in group discussion and tutorials. They will be required to compile a portfolio, which they will present for assessment purposes at the conclusion of the module.

20. Assessment:

Student performance in this module will be assessed by individual portfolios. The concepts of portfolio assessment and performance assessment will be discussed at the start of the module:

Portfolio 100%

21. Required Texts:

Biggs, J., & Watkins, D. (Eds.) (1995). *Classroom Learning: Educational Psychology for the Asian Teacher*. Singapore: Simon & Schuster (Asia) Ltd.
Eggen, P.D. and Kauchak, D. 2nd Ed. (1994). *Educational Psychology: Classroom Connections*. New York. Merrill/Macmillan.

22. Recommended Reading:

Falvey, P., Holbrook, J., & Coniam, D. (1994). *Assessing Students*. Hong Kong: Longman Group (F. E.) Ltd.
Hui, E. K. P., & Yung, K. K. (1992). *Helping pupils with learning difficulties*. Hong Kong: Longman Group (F. E.) Ltd.

23. Other Information (If any): Nil

Appendix 25

Examples of Classroom QLT Tasks for Module: "Classroom Teaching Skills"

The following examples represent a selection of the classroom tasks that the QLTs were required to carry out during the education modules. The classroom sessions were a combination of lecturer-led discussion, student-centred discussion and lecturer-student interactions using lecturer generated learning materials based on module texts. For each two-hour session, most of the teaching team opted to lead lecturer-centred activities for the first hour, followed by student-centred tasks in the second. There was ample opportunity for students to research and prepare.

Module: "Classroom Teaching Skills"

Required Text: Cooper, J.M. (1996) Classroom Teaching Skills. Boston, Mifflin Co.

Each of the student teachers was required to purchase this text for the module.

Module Objectives*To enable students to:*

- a. apply communication principles to the classroom to minimise problems of misunderstanding and encourage classroom interaction and pupil questioning
- b. demonstrate presentation skills
- c. describe the structure and the components of lesson plans
- d. develop detailed lesson plans and schemes of works (including use of various media appropriate to learning outcomes)
- e. evaluate lesson plans
- f. demonstrate questioning skills
- g. describe various teaching strategies (expository, discussion, inquiry, discovery etc.), involving students in the learning process, student-centred learning and to evaluate their importance.
- h. suggest reasons for misbehaviour.
- i. demonstrate skills in classroom management.

TASK 1

(This was the first collaborative task that the team had to carry out, presenting their team findings to the class)

"Describe what you consider makes a "Good" and a "Bad" teacher.

There was no notice given to the class before they were asked to carry out this task. Each team was given ten minutes for discussion, after which they were required to select one member of the team to present their team findings. The time for presentations was not specified and times varied from one minute to four minutes.

Each team was required to give a presentation and the fact that many of their findings were similar encouraged the teams to enter into discussion with each other.

The task required the student teachers to reflect on their past school experiences. This resulted in a great deal of class-wide discussion which assisted in the 'get-to-know-you' process as the QLTs began to function.

Task 2

(This task was a multiple one, satisfying a number of module objectives)

Prepare a ten minute presentation on a subject of your choice – a subject that you might teach on your first teaching practice. It can represent any one of your elective subjects.

In this case the teams were to address teacher planning, lesson plans, use of objectives and to take account of teacher presentation skills.

The class were required to evaluate the objectives, lesson plans, presentation methods and style and the use of any media used in their classmates' presentations.

Task 3

(This task, concentrating on questioning skills, required each QLT, using various sources and learning materials provided by the lecturer to prepare a ten-minute presentation on one of the following:)

Prepare a ten-minute presentation on questioning skills in one of the following areas:

What are divergent and convergent questions?

What are low level or high level questions?

What does it mean to question with sensitivity and to a suitable level for each student?

Discuss questioning skills in relation to Benjamin Blooms taxonomy – the first three levels.

Discuss questioning skills in relation to Benjamin Blooms taxonomy – the last three levels.

Discuss the advantages of encouraging questioning from students.

Discuss the importance of questioning in relation to effective teaching and learning.

How do questioning skills provide feedback on teaching effectiveness and on student evaluation?

The objective here was to encourage and role model questioning skills within the student body and to formulate appropriate questions for different classes.

The class evaluated each other as they completed their allotted task.

Task 4

(This task concerned itself with the classroom management issues which would affect the student teachers as they prepared for their teaching practice.)

Discuss one of the eight classroom management models described in Chapter 8 of the textbook:

The authoritarian classroom management approach

The intimidation classroom management approach

The permissive classroom management approach

The cookbook classroom management approach

The instructional classroom management approach

The behaviour-modification classroom management approach

The socio-emotional classroom management approach

The group process classroom management approach

This was intended to create an appreciation of different styles and models of classroom management, based on different situations and to provide for differentiation in the classroom.

Appendix 26

Interview data of the non-intervention teaching staff in July 1998 and July 1999

Interview Question	Non-Intervention Teaching Staff Response	General Analysis by researcher
1 In your normal teaching you will probably have used group learning strategies in your classes during the past year; did you think group work was useful for teaching the education modules?	<ul style="list-style-type: none"> This is normal to use small groups and this can be quite useful but it takes time from the lesson Yes, useful Group work helps when student presentations have to be done, this saves time, however a lot of organisation is needed Understanding can sometimes be improved The use of group work helps in overcoming the barriers between students 	<i>Generally lecturers felt positive about having to use group work and were comfortable with it even if it did take time to organise</i>
2 How did you determine the members of each learning group or team in your classroom?	<ul style="list-style-type: none"> Allowed students to form own working groups Organised according to seating arrangements in the classroom. More efficient to use close together students Allocated teams according to Elective Subjects Allocated good and poor students into each team. Allowed gender groups to form teams Members chose their own team leader 	<i>In a similar way to the intervention classes a variety of methods were used</i>
3 Why did you use a group or team learning strategy in your classroom?	<ul style="list-style-type: none"> Group learning provided a way to increase student collaborative skills as the students had to help each other Group work does sometimes help in providing a better understanding of the teaching materials Presentations were more meaningful when a group did the presentation Using learning groups allowed the students to discuss issues more fully Group work also helps individual students to develop confidence 	<i>Lecturers agreed better understanding, better presentations resulted when using some team or group work but it was reported as hard work to organise</i>
4 How successfully do you consider the group learning strategy was in your classroom?	<ul style="list-style-type: none"> It was useful and worked OK with quite a lot of material covered Quite well but it can be noisy and difficult to keep control and can be time-wasting and slow down the delivery of the lecture Some friendships came from the learning groups but there were some students who did not like working with others Group work worked well most of the time but it can be time-wasting if close supervision is not provided 	<i>Most groups worked quite well but can also cause problems with noise and in keeping control</i>
5 Do you consider that you successfully used learning groups or teams in your classroom?	<ul style="list-style-type: none"> Not really as there was not enough time to give the groups to do group work Fairly well used but with a lot of effort I was trying to cover the syllabus quickly and the group work sometimes helped but often group work took a lot of time 	<i>Generally the lecturers felt that group work took too much time and effort and resulted in arguable benefits</i>
6 How would you describe a learning group or team?	<ul style="list-style-type: none"> A bit of a waste of time as they are difficult to work with A group that could benefit from a cooperative learning effort which worked to some extent All students worked in groups of four but it was difficult to establish a leadership role and to get them to agree on issues There was some definite benefits as grouping allowed relationships to build up and this did help in the learning process 	<i>Mixed feelings from the lecturers who were unsure of the extent of benefits derived from using learning groups</i>
7 Was the content the two education modules suitable for using learning groups or teams in your classroom?	<ul style="list-style-type: none"> The Chinese literature on Educational Psychology OK but we also had to make use of some English materials which made understanding difficult for Chinese students. Groups or learning teams encouraged student discussion providing better and fuller understanding It was suitable to a certain degree but the use of groups or teams and resulting discussion within teams resulted in quite good understanding 	<i>The lecturing staff was agreed that group work could be used with these materials.</i>
8 Did you have any particular problems with your class when using learning groups or teams?	<ul style="list-style-type: none"> There were some problems with group work when I allocated the group members Doing group work took a lot of supervision and time The group members did not want to meet outside class time to do their presentations, they say it is impossible for them to meet due to timetable difficulties The students were reluctant to work together in a small learning group, saying that they were afraid of sharing their weakness with others as they would lose face 	<i>Difficulties in teams getting together and a reluctance in working together</i>
9 Do you think that the students enjoyed working together as a learning	<ul style="list-style-type: none"> Learning together was not something that they had experienced very often in their school career and they were concerned about getting the same marks for work when they might have worked harder or done more 	<i>Many of the students were unwilling to expose inadequacies in their individual learning styles</i>

group or team in your classroom?	<ul style="list-style-type: none"> • They did work together but it was hard work to keep a close supervision to ensure that they were on task • It was clear that some of the students did enjoy working together and friendships did occur from the strategy • Some definitely did not like working in groups, possible through their own inadequacies in learning or understanding 	
10 Did you and your students find using group work useful in preparing for portfolio assessment in the education modules?	<ul style="list-style-type: none"> • Yes they did find group work useful in getting ideas but it was difficult sometimes to persuade the students that they could assist each other in building their portfolios • Most found it useful so long as there was some guidance from their lecturer • Working in groups did provide a platform for the students to give each other advice and assistance in completing their reflective statements for their portfolios 	<i>For most of the students it was a help working with others as they could compare and improve their work</i>
11 Do you think that the students' might have learned more or gained a deeper understanding by using learning groups or teams and if so how did this show itself?	<ul style="list-style-type: none"> • Generally they did benefit from the experience but it was unclear if they had a deeper understanding or not • Working in groups did help in building confidence and the students were for the most part more willing and confident in talking about the subject matter 	<i>There was uncertainty but some agreement that the students might have learned a lot but maybe not more than would be expected</i>
12 Do you think that a group learning strategy assisted with language comprehension?	<ul style="list-style-type: none"> • Some of the students were weak in language use and working in a group certainly helped them express themselves • The quiet students probably did not benefit very much because they were unwilling to talk openly even when prompted by their group members 	<i>It was clear that group work encouraged the students to communicate with each other and this did assist with comprehension of the learning materials supplied for the module</i>
13 Do you think that using groups or teams helped to improve student self-confidence and self-esteem?	<ul style="list-style-type: none"> • For many of the students there seemed to be better self confidence • There was insufficient time for an assessment to be made in determining student self-confidence • Working in groups made them focus on a consensus which seemed to give them confidence • The group learning strategy encouraged them to talk more and this gave some of them the feeling of gaining confidence 	<i>For many of the students they did seem to gain confidence</i>

Appendix 27

Teaching Team Observation Comments for 1998 Cohort (CTS)

(Taken from September 1998 until July 1999)

Lecturer comments collected and discussed by the teaching team as the two education modules progressed, followed a similar pattern to that of the first cohort in 1997. A summary of observations follows:

Education Module: "Classroom Teaching Skills"

(Observations taken from September – December 1998)

Semester One -1998 Week No: And Date	Staff #:	Observations and Comments made by Teaching Team on QLT addressing their work tasks	Researcher comments and or actions to be taken
Week 1 22-09-98 & 25-09-98	#2 & #5 #1 #3 #4 #1 #1 #All #All #1 & #4 #1, #3, #5	<p>Note: First teaching team meeting discussed various approaches to allocating students to learning teams. The teaching team was encouraged to group student according to their own preferences.</p> <p>Comments about learning team formation in the classroom</p> <ul style="list-style-type: none"> Grouped according to main subject and subsidiary subject. Allowed to group as they wished. Allowed gender specific grouping. Chosen from distribution of students in lecture room. <p>Observations of learning teams</p> <ul style="list-style-type: none"> Students were excited by responsibility of forming their own groups. Some uncertainty amongst class, but eventually most formed learning teams with three to five members. All eager to work with others and to make friendships. Learning teams worked well together on this first occasion. Most overcame their shyness and with encouragement joined in discussions. Clear indications of learning team leaders emerging from first classroom meeting. 	<p>Ensure that students in all learning teams had an opportunity to give their opinion. Close supervision will be required especially over the first few weeks. All lecturers agreed that special observation was needed.</p>
Week 2 29-09-98 & 02-10-98	#2 #5 #1 #4 #3 #3, #5 #1, #2, #5	<ul style="list-style-type: none"> Some uncertainty among team members due to misunderstanding of the objectives of forming learning teams from first week. This led to two students requesting a change of team. Learning teams beginning to emerge with dominant and timid members. Already clear to see where some guidance might be needed in allowing all members in on the discussion and in forming opinions useful to the team. Some of the learning teams found it difficult to arrange a meeting time outside normal class time due to different timetable schedules throughout the week. Despite differences in opinion beginning to emerge all appeared to like the idea of working in a learning team. A number of students were concerned with a fair distribution of grades within teams. The students were eager to understand how they might be individually assessed within their learning team. Many students found it very difficult to produce their first individual video report. It was clear that none of them had used their learning team members or anyone else to do the camera work or act as a prompt for the speaker. Teams presented their first learning team submission to the class in the form of an opinion on an educational issue. This illustrated to them the need to write down their thoughts to form the basis of a plan for presentation. 	<p>All of the teaching team agreed that close supervision was needed in order to ensure that all opinions were entertained and considered useful to the learning teams. Lecturers agreed that students would be constantly reassured that the work of individuals would be counted towards a final individual grade.</p>
Week 3 06-10-98 & 09-10-98	#4 #1 #2, #5 #3 #5, #2 #5	<ul style="list-style-type: none"> Students settling down to lessons in this third week of the semester and the first excitement at working in a learning team is giving way to the realities of who does what and the distribution of the practical workload among the learning team members. Quite a lot of reluctance of learning team members to express themselves in front of their team or others in the class. All of the students in the learning teams agreed that a written plan is necessary if their presentations are to be organised. Some argument within learning teams as to the distribution of workload as the teams took their learning materials and decided what had to be done. Out of class tutorials requested by learning teams. Learning teams have a number of copies of the required text and 	<p>The supervision and in-depth student/lecturer discussions and tutorials were successful. All teaching team members agreed to continue with the intensity of contact instigated over the past week.</p>

		are in the process of discussing content and meaning.	
Week 4 13-10-98 & 16-10-98	#1, #2, #4 All #4 #1 #3 #2, #4, #5	<ul style="list-style-type: none"> With lecturer prompting, there was much class discussion on content of materials that had been given to each learning team. Learning team presentations of the material given to them in the previous week on involving students in the learning process. Quite satisfactory performances of learning teams. Learning teams appearing to work well together, the more able providing support to team members when needed. Shyness/reluctance of individual students continues to be in evidence as they work in their learning teams. Individual students appear more confident as they built working relationships with their learning teams. Many of the students willing to share their own school experiences of traditional teaching and the effect that this has had. 	<i>By week four the QLTs were well aware of the need to involve students in the learning process and they reported that that is just what they were doing. This made them reflect on their own learning styles and needs.</i>
Week 5 20-10-98 & 23-10-98	#1, #2, #3, #5 All All #3, #4 All #1, #3, #4	<ul style="list-style-type: none"> Video presentations submitted by individual students showed improvement over first presentation. Much planning done and evidence of QLT members assisting with camera work and in role-playing as an audience, as presentations were recorded. Students appreciated the in-depth critical comment given to them after their video presentations. Complaints from learning teams about their difficulties in meeting to work on and compare notes on their learning materials. Whole class observation of a demonstration lesson at a TP school, which each learning team had to evaluate and critically comment upon. Much e-mail and mobile phone conferencing being done within learning teams. This is overcoming some of the difficulties in actually meeting outside class hours. Small changes to some learning teams as members moved from their original learning team to another. Some of these changes were the result of students 'clashing'. 	<i>The student teachers were nervous about their video presentations and needed support from each other as they examined their instructional techniques in front of the camera. The QLTs seem to be getting closer as they begin to know and rely on each other for advice and assistance.</i>
Week 6 27-10-98 & 30-10-98	All #2, #4, #5 #3 #1, #5 #1, #4	<ul style="list-style-type: none"> Much of the initial shyness of individuals had for the most part disappeared with learning team members fitting in and contributing to team activities. From this week's lesson, it is clear that the learning teams form/gel immediately they enter the classroom enabling team discussion during the class. Confidence evident even in those reluctant or shy students as class based discussion takes place and argument/discussion is encouraged. The learning teams bring up the issue that teachers have to be open-minded in what they do and think and in how they treat their own students in school. Quite productive classroom sessions with most students willing to risk 'face' as they take part in debate. 	<i>The teaching team reported that by this stage in the semester al, of the student teachers appeared to be taking responsibility for their own learning and were highly critical of everything that they were doing.</i>
Week 7 03-11-98 & 06-11-98	All All All #2, #4, #5	<ul style="list-style-type: none"> Reflective statements from individuals are being treated by the QILT as representative of the learning team, attracting open and frank discussion among learning teams. The reflective statements are beginning to come together, but the students are still learning what it means to be reflective. Evident that both learning teams and individuals are utilising materials from a wider perspective of web sites, library, multi-media and from government sources. Individual portfolios, assembled with a collection of work that they had done and reflective statements they had prepared were inspected by learning team members. This was valuable as it allowed learning team members to see what their team members had done and provided a stimulus for improvement. 	<i>The students are beginning to realise what reflection is all about and are producing reasonable reflective statements.</i>
Week 8 10-11-98 & 13-11-98	All #1, #4 All	<ul style="list-style-type: none"> Student teachers reported that their school visits during the week had provided them with a better insight into the issues which they had been working on in the module. The school visits engendered interest in lesson planning and in using learning objectives which they had not quite understood until this point. 	<i>The school visits were a 'wake-up call' for the student teachers who realised that the education</i>

	#1, #2, #4 All	<ul style="list-style-type: none"> ◦ Less visible evidence of lack of self-confidence as learning teams operated in the classroom. ◦ Lesson planning produced by each learning team was clearly a team effort and had the effect of encouraging a logical approach to preparing for lessons. ◦ Class discussions on classroom management issues created much debate, based on the students' own experiences and how they might approach classroom management on their forthcoming TP. 	<i>module would be useful in their job of teaching.</i>
Week 9 17-11-98 & 20-11-98	#3 #5 #2, #3 #1 All #4	<ul style="list-style-type: none"> ◦ Much discussion on issues raised during last week's discussion on classroom management issues. ◦ Each learning team required to prepare and present one of the classroom management models indicated in the learning materials provided to them. ◦ Learning teams given time to prepare in class time – allowing them to work together without the pressure of finding time in their schedules. ◦ The learning teams discussed psychological issues in relation to classroom management approaches. ◦ Very good presentations given by all learning teams. ◦ Presentations encouraged lively classroom debate and questioning. 	<i>The teaching team reported satisfactory progress with the QLTs this week, with the teams asking about and discussing issues from their school visits. Quite good Team presentations.</i>
Week 10 24-11-98 & 27-11-98	#4, #5 All #1, #2 #1, #5 #3	<ul style="list-style-type: none"> ◦ Discussion on questioning techniques engendered much argument about how best to implement a questioning strategy within the classroom. ◦ It was clear that the learning teams had considered questioning as an important element in teaching for effective learning and encouraged each other in formulating a series of questions to satisfy the Bloom's Taxonomy of levels of questions. ◦ Examples of different levels and depths of questions were prepared by each learning team and trialled in front of the class. ◦ Learning teams identified some of their past teachers as intimidating when asking questions and this encouraged class discussion on types of questioning. ◦ Student teachers were enthusiastically agreed that effective questioning was an integral part of being an effective teacher. 	<i>The QLTs experience during their short school visit made them realise the importance of questioning and this stimulated much discussion this week. They had some good ideas for their presentations in the coming weeks.</i>
Week 11 01-12-98 & 04-12-98	#1, #4 All All	<ul style="list-style-type: none"> ◦ Learning team demonstrations combined classroom management strategies with questioning to effectively control a class and to encourage an enquiring learning environment. ◦ Learning teams working extremely well together with all individuals being encouraged to participate in the activities and discussion led by the learning team. ◦ The individuals in the learning teams were clearly becoming very good friends. This was reported by many of the students in their learning teams. 	<i>The QLTs were working well together and friendships were being cemented.</i>
Week 12 08-12-98 & 11-12-98	All All All	<ul style="list-style-type: none"> ◦ Learning teams assisting each other in the final stages of the preparation of their portfolios and in preparing a team report on the usefulness of the education module. ◦ Learning teams report on their feelings about the education module and what they had learned. ◦ Excellent collaboration amongst learning team members. 	<i>Final presentations by QLTs which demonstrated a 'togetherness' that was widely reported by the teaching team</i>
Week 13 15-12-98 & 18-12-98	All All All #2, #3 All	<ul style="list-style-type: none"> ◦ Portfolio presentations in front of a panel of peers. ◦ Evaluation panels changed to include all students in the class as the presentations progressed. ◦ Excellent questioning of individuals by panel members. ◦ Excellent feedback given by panel regarding portfolio evaluations. ◦ All students presented their portfolios during the last session and teaching team members supervised all feedback. 	<i>Portfolio presentations well done. All student teachers acted as panel members and therefore had to carry out a number of evaluations.</i>

Appendix 28

Teaching Team Observations for 1998 Cohort – I.D.S. Module

Education Module: "Instructional Design & Strategies for Effective Teaching"

Semester Two - 1999 Week No: And Date	Lecturer No:	Observations and Comments made by Teaching Team on QLTs addressing their work tasks	Actions to be taken or Comments
Week 1 05-01-99 & 07-01-99	All	<ul style="list-style-type: none">Learning teams remained much the same as for the first semester. Only one or two students decided to change teams.Learning teams immediately settling into a classroom routine, working together. Clearly the formation of the learning teams, using the same teams from the first semester, saw many who had remained on friendly terms and who were comfortable working with each other again in the same learning team for another education module.Drawing on their previous school experience, each learning team discussed and prepared a list of reasons for society in general, Hong Kong in particular, for having school education.After much discussion, learning teams identified reasons for having schools, which each team presented to the class.Learning teams suggested examples of societies or cultures where school learning might be seen as valuable or not..	<i>QLTs quickly settled down to work as most were in the same QLTs.</i>
	#2, #3, #4, #5		
	#1, #3, #4		
	#2, #3, #4 #5		
Week 2 12-01-99 & 14-01-99	#1, #2, #4, #5	<ul style="list-style-type: none">Discussion of the importance of involving students in the learning process led to learning teams giving examples of where and how to involves students in the learning process. Learning team members brought their own school experience into the discussion.Co-operative learning was identified by most learning teams as a strategy that teachers might use to involve students in the learning process. The learning team members cited few of their own teachers as having used co-operative learning.Learning teams recognised that what they were doing in their learning teams was co-operative and also collaborative learning.Good discussion and also argument between learning teams. Defense of their own team suggestions/arguments.Lively debate and questioning to reach a consensus.	<i>Most of the QLTs recognised that co-operative learning was important in the learning process.</i>
	All		
	All		
	#2, #3, #4, #5 All		
Week 3 19-01-99 & 21-01-99	#1, #4, #5	<ul style="list-style-type: none">Learning teams presented their views of 'Metacognition', commenting on how this concept was a student-centred approach to learning, involving the construction of knowledge into full conceptual understanding.Good team spirit among teams as each team defended their conceptual understanding in their presentations to the class.The less confident student teachers were also becoming involved in the class activities and making a contribution to the discussion.There was excellent dialogue between the learning teams.All of the student teachers were apprehensive about their forthcoming TP and were eager to understand the relationship between the theories and the classroom practice that they might expect to use during TP.	<i>QLTs reported as operating very well and being productive in their learnin.</i>
	All		
	All		
	All #3, #4		
Chinese New Year Break			
Week 4 09-02-99 & 11-02-99	All	<ul style="list-style-type: none">Teams were a little subdued this week due to the holiday and the prospect of their forthcoming teaching practice.The QLTs worked well despite the lack of continuity of the class meetings due to holidays.Quite good discussions amongst teams as issues on classroom management were addressed.Still some problems with the less confident students as they are finding it difficult to voice their opinions.A little bit of 'in-fighting' between team members due to misunderstandings.	<i>Problematic motivating the QLTs again after their holidays. This was exacerbated by the prospect of the impending TP period</i>
	All		
	#1, #5		
	#2, #3 #4		
Week 5 16-02-99 & 18-02-99	#1, #4	<ul style="list-style-type: none">Learning teams working on presentation of 'The need for learning objectives in our classroom practice'.Learning teams attended tutorial sessions to discuss presentations for next week.Teams working on video presentations of objectives and their importance in organising a new teacher's thinkingSome QLT members were seen to be assisting their team members in reading some of the learning materials which they	<i>The teaching team reported that all QLTs were operating well with much discussion between teams</i>
	#2, #5		
	All		
	#1, #3, #4		

	All	<ul style="list-style-type: none"> did not understand Teams working well together and even managing to meet outside classroom time 	
Week 6 23-02-99 & 25-02-99	All All #2, #3, #4, #5 All	<ul style="list-style-type: none"> Learning teams presenting their work/findings to the class. Student teachers evaluated each learning team's presentation for content and style of performance. Learning team members carried out an evaluation of their own contribution to their team's presentation and also of the performance of their learning team in front of the class. Good working relationships within each team 	<i>QLTs enjoyed evaluation each other. The results of the evaluation were similar to those made by the teaching team.</i>
Week 7 02-03-99 & 04-03-99	All #1, #2, #3 #4 #5	<ul style="list-style-type: none"> Individuals appear distracted by the forthcoming Teaching Practice and were worried about their part in student learning Teams working on their ideal lesson plan after they asked for a chance to do this exercise with their team members Good collaboration with teams as they planned the ideal lesson One or two students still not quite a part of their teams 	<i>Time spent in discussing issues within the module of direct impact on their TP experience.</i>
Week 8 09-03-99 & 11-03-99	All #1, #4, #5 #2, #3	<ul style="list-style-type: none"> Teams present their ideal lesson plan to the class which led to discussion on the importance of lesson plans for teaching practice and control of classes Learning teams prepare questions relating to TP which has been the subject of class activities during the first seven weeks of the second semester. Class discussion took place between learning teams on the various specific questions, mainly discussing classroom management strategies. 	<i>Much discussion on TP-related issues concerning lesson plans and the specification of objective.s</i>
Teaching Practice Period			
Week 9 04-05-99 & 06-05-99	All #1, #2, #4 #3, #5	<ul style="list-style-type: none"> The teams reported on their collective experiences on teaching practice in relation to the module objectives that they had studied during the first six weeks Individual student teachers seemed more relaxed after their teaching practice and were more confident in discussing classroom and instructional issues that had presented themselves as problems during teaching practice Teams working on issues of classroom management that they had experienced during their teaching practice 	<i>Broad discussion of TP experiences and how the module objectives were demonstrated in a school setting.</i>
Week 10 121-05-99 & 13-05-99	#5 #3, #4, #2 #2 All #1, #3 #5	<ul style="list-style-type: none"> Teams present their teaching practice experiences and suggested solutions to their problems in the classroom. A lot of discussion on teaching students with different learning needs. Teams examining their experience of teaching students with diverse learning needs and preparing a presentation for the whole class. Good team work with lots of team discussion The majority of students are now a part of their team and are participating fully A few students still unsure of working so closely with others 	<i>Teams working as one body creating a very strong bond between members. Good strong discussion taking place in all classe.s</i>
Week 11 18-05-99 & 20-05-99	#1, #5 All All	<ul style="list-style-type: none"> Presentations by teams on teaching students with different learning needs. Excellent work showing maturity and co-operation between team members Teams beginning to discuss their portfolio submissions and working together to determine suitable inclusions, in addition to the required reflections, for their portfolios 	<i>Dealing with students with special needs was discussed in light of TP experience.s</i>
Week 12 25-05-99 & 27-05-99	#2, #4, #5 All #3, #5 All	<ul style="list-style-type: none"> Learning teams meet to assist each team member to examine the contents of their portfolio and decide what best provides evidence of their learning from, and understanding of, the module. Lots of discussion on the requirements of the portfolio leading to discussion on assessment and evaluation in the classroom. Excellent collaboration within teams Class discussion on module objectives leading to team debate on some contentious issues from their teaching practice 	<i>Finalising of reflective statements which assisted in the building of the student portfolios. Much discussion took place.</i>
Week 13 01-06-99 & 03-06-99	All All All All	<ul style="list-style-type: none"> All individual student teachers presented their portfolios to a peer evaluation panel and to the class. Panels worked well and honestly in assessing their classmates. Teams celebrate their concluding session. Clear to see that all had enjoyed the experience of working together – even those who remained slightly negative about learning in teams. Students presented their portfolios with confidence and were clearly ready to defend their learning and understanding 	<i>Student presentations of their individual portfolios.</i>

Appendix 29

MODULE RESULTS ENTRY FORM 1997 - 1998 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 1

Academic Year: 1997 - 1998 Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	C, C Y		98	A	
2	C, C M		98	B	
3	C, C Y		98	B	
4	C, H C		98	A	
5	C, H N		98	C	
6	C, H S		98	D	
7	C, K C		98	C	
8	C, S Y		98	B	
9	C, S Y		98	B	
10	C, T Y		98	A	
11	C, S Y		98	B	
12	C, S N		98	A	
13	C, K T		98	A	
14	C, N Y		98	B	
15	C, S T		98	B	
16	C, W Y		98	C	
17	C, L T		98	B	
18	C, O T		98	A	
19	C, K K		98	A	
20	C, W Y		98	C	
21	L, M Y		98	B	
22	L, H Y		98	A	
23	L, H Y		98	B	
24	L, H Y		98	B	

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)
Group: 1

Academic Year: 1997 - 1998

Semester: 2

Subject: Professional Studies

Credit Point(s): 2

Module Coordinator:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
25	L, S T		98	C	
26	L, M		98	B	
27	M, C L		98	A	
28	T, C S		98	B	
29	Y, W Y		98	A	
30	Y, A K		98	C	
31	Y, Y M		98	A	
32	Y, C C		98	C	
33	Y, W C		98	B	
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 33

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997 - 1998 Semester: 2

Group: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator: Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	C, W M		98	B	
2	H, S C		98	B	
3	H, Y S		98	A	
4	H, Y N		98	A	
5	H, W H		98	B	
6	H, Y M		98	B	
7	I, K K		98	A	
8	I, M K		98	C	
9	K, K L		98	A	
10	K, Y K		98	B	
11	K, W C		98	B	
12	L, C Y		98	C	
13	L, H M		98	A	
14	L, H C		98	A	
15	L, H Y		98	C	
16	L, K Y		98	B	
17	L, S M		98	C	
18	L, Y M		98	A	
19	L, Y S		98	C	
20	L, L T		98	C	
21	L, S L		98	B	
22	L, Y Y		98	D	
23	L, C H		98	A	
24	L, C W		98	A	

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997 - 1998

Semester: 2

Group: 2

Credit Point(s): 2

Subject: Professional Studies

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No.</u>	<u>Grade</u>	Status
25	L, K Y		98	C	
26	L, P S		98	B	
27	L, W Y		98	C	
28	L, Y H		98	A	
29	L, K Y		98	B	
30	L, S H		98	B	
31	L, W T		98	B	
32	N, K S		98	A	
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 32

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 29

MODULE RESULTS ENTRY FORM

1997 - 1998 Intervention Sample

Module Code: CE

**Name: Instructional Design and Strategies
for Effective Teaching**

Course: (Secondary)

Group: 3

Academic Year:

1997 - 1998

Semester: 2

Subject: Professional Studies **Credit Point(s):** 2

Module Coordinator: **Module**

Lecturer:

	<u>Name (English)</u>	<u>(Chinese)</u>	<u>Student No:</u>	<u>Grade</u>	<u>Status</u>
1	L, O M		98	A	
2	L, Y K		98	A	
3	L, M F		98	C	
4	M, H K		98	B	
5	M, M W		98	C	
6	M, S K		98	A	
7	N, C W		98	B	
8	N, K M		98	B	
9	N, K Y		98	A	
10	N, L K		98	A	
11	N, M S		98	C	
12	N, P Y		98	B	
13	N, S Y		98	A	
14	S, W S		98	B	
15	S, S F		98	B	
16	S, Y S		98	B	
17	T, S H		98	A	
18	T, S H		98	D	
19	T, K F		98	A	
20	T, S M		98	A	
21	T, S L		98	B	
22	V, H Y		98	D	
23	W, C H		98	A	
24	W, C M		98	B	

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997-1998

Semester: 2

Group: 3

Credit Point(s): 2

Subject: Professional Studies

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
25	W, C Y		98	B	
26	W, K Y		98	A	
27	W, K		98	C	
28	W, S M		98	C	
29	W, W C		98	A	
30	W, P M		98	A	
31	W, Y S		98	B	
32	Y, W Y		98	B	
33	Y, K W		98	B	
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 33

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 29

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample**Module Code:** CE**Name:** Instructional Design and Strategies
for Effective Teaching**Course:** (Secondary)**Group:** 4**Academic Year:** 1997 -1998**Semester:** 2**Subject:** Professional Studies **Credit Point(s):** 2**Module Coordinator:** **Module****Lecturer:**

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	C, C Y		98	A	
2	C, C M		98	A	
3	C, C Y		98	A	
4	C, H C		98	B	
5	C, H N		98	D	
6	C, H S		98	A	
7	C, K C		98	B	
8	C, S Y		98	A	
9	C, S Y		98	B	
10	C, T Y		98	B	
11	C, S Y		98	B	
12	C, S N		98	A	
13	C, K T		98	A	
14	C, N Y		98	C	
15	C, S T		98	A	
16	C, W Y		98	C	
17	C, L T		98	B	
18	C, O T		98	A	
19	C, K K		98	B	
20	C, W Y		98	C	
21	L, M Y		98	C	
22	L, H Y		98	A	
23	L, H Y		98	B	
24	L, H Y		98	C	

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997-1998

Semester: 2

Group: 4

Credit Point(s): 2

Subject: Professional Studies

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
25	L, S T		98	A	
26	L, M		98	A	
27	M, C L		98	B	
28	T, C H		98	C	
29	Y, W Y		98	C	
30	Y, Y M		98	A	
31	Y, C C		98	A	
32	Y, C K		98	B	
33	Y, L K		98	B	
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 33

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 29

MODULE RESULTS ENTRY FORM

1997 - 1998 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 5

Academic Year: 1997 - 1998**Semester: 2**

Subject: Professional Studies **Credit Point(s):** 2

Module Coordinator: **Module**

Lecturer:

	<u>Name (English)</u>	<u>(Chinese)</u>	<u>Student No:</u>	<u>Grade</u>	<u>Status</u>
1	K, S. Y.		98	B	
2	K, L. P.		98	A	
3	K, I. M.		98	A	
4	K, N. C.		98	B	
5	K, W. K.		98	C	
6	L, K. W.		98	B	
7	L, C. M.		98	C	
8	L, C. Y.		98	D	
9	L, C. P.		98	A	
10	L, H. Y.		98	D	
11	L, M. Y.		98	A	
12	L, M. N.		98	C	
13	L, N. F.		98	A	
14	L, W. Y.		98	B	
15	L, K. Y.		98	D	
16	L, S. P.		98	A	
17	L, W.		98	A	
18	L, H. Y.		98	A	
19	L, K. K.		98	B	
20	L, K. W.		98	B	
21	L, S. M.		98	A	
22	L, T. K.		98	A	
23	L, C. H.		98	C	
24	L, K. M.		98	B	

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997 - 1998 Semester: 2

Group: 5

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:

Module Lecturer:

	<u>Name</u> (English)	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
25	L, L..		98	C	
26	L, W. Y.		98	B	
27	L, Y. Y.		98	B	
28	L, P. Y.		98	B	
29	L, W. S.		98	C	
30	L, Y. P.		98	B	
31	L, H. Y.		98	A	
32	L, T. Y.		98	B	
33	M, T.H.		98	A	
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 33

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997 - 1998 Semester: 2

Group: 6

Subject: Professional Studies Credit Point(s): 2

Module Coordinator: Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	B, Y. C.		98	A	
2	C, K. W.		98	A	
3	C, W. L.		98	B	
4	C, Y. H.		98	B	
5	C, L. K.		98	B	
6	D, W. M.		98	C	
7	F, S. F.		98	A	
8	H, S. W.		98	A	
9	K, L. K.		98	C	
10	K, M. C.		98	B	
11	K, Y. I.		98	B	
12	L, P. L.		98	C	
13	L, Y. P.		98	B	
14	L, C. C.		98	B	
15	L, K. W.		98	C	
16	L, K. Y.		98	A	
17	L, K. L.		98	A	
18	L, S. W.		98	B	
19	L, Y.		98	A	
20	L, K. U.		98	A	
21	L, C. W.		98	C	
22	M, W. H.		98	B	
23	N, K. Y.		98	D	
24	N, S. W.		98	A	

Appendix 29

MODULE RESULTS ENTRY FORM
1997 - 1998 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 6

Academic Year: 1997-1998

Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
25	S, C. Y.		98	C	
26	S, S. Y.		98	A	
27	T, Y. H.		98	A	
28	T, L. H.		98	C	
29	W, F. Y.		98	B	
30	W, P. S.		98	C	
31	W, T. F.		98	A	
32	W, T. T.		98	D	
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 32

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 29

MODULE RESULTS ENTRY FORM

Non-Intervention or Comparison Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 7

Academic Year: 1997 - 1998 Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator: Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	I, S. Y.		98	B	
2	K, L. P.		98	B	
3	K, I. M.		98	C	
4	K, N. C.		98	A	
5	K, W. K.		98	C	
6	L, K. W.		98	C	
7	L, C. M.		98	C	
8	L, C. Y.		98	D	
9	L, C. P.		98	B	
10	L, H. Y.		98	C	
11	L, M. Y.		98	A	
12	L, M. N.		98	C	
13	L, N. F.		98	A	
14	L, W. Y.		98	B	
15	L, K. Y.		98	C	
16	L, S. P.		98	B	
17	L, W.		98	A	
18	L, H. Y.		98	A	
19	L, K. K.		98	B	
20	L, K. W.		98	B	
21	L, S. M.		98	A	
22	L, T. K.		98	B	
23	L, C. H.		98	C	
24	L, K. M.		98	C	

Appendix 29

MODULE RESULTS ENTRY FORM
Non-Intervention or Comparison Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)
Group: 7

Academic Year: 1997-1998

Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
25	L, L..		98	C	
26	L, W. Y.		98	D	
27	L, Y. Y.		98	C	
28	L, P. Y.		98	B	
29	L, W. S.		98	A	
30	L, Y. P.		98	B	
31	L, H. Y.		98	C	
32	L, T. Y.		98	C	
33	L, A. W.		98	C	
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 33

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 29

MODULE RESULTS ENTRY FORM
Non-Intervention or Comparison Sample**Module Code:** CE**Name:** Instructional Design and Strategies
for Effective Teaching**Course:** (Secondary)**Group:** 8**Academic Year:** 1997 - 1998**Semester:** 2**Subject:** Professional Studies **Credit Point(s):** 2**Module Coordinator:** **Module****Lecturer:**

	<u>Name (English)</u>	(Chinese)	<u>Student No.</u>	<u>Grade</u>	Status
1	C, C. M.		98	D	
2	C, M. C.		98	C	
3	C, W. H.		98	A	
4	C, W. M.		98	B	
5	C, C. L.		98	D	
6	C, Y. Y.		98	A	
7	C, S. C.		98	E	
8	C, C. M.		98	C	
9	C, S. T.		98	C	
10	C, Y. Y.		98	B	
11	C, Y. Y.		98	C	
12	C, W. H.		98	A	
13	C, W. K.		98	B	
14	C, W. L.		98	C	
15	C, W. M.		98	A	
16	C, W. P.		98	A	
17	C, W. S.		98	C	
18	C, W. T.		98	B	
19	C, W. W.		98	B	
20	H, C. M.		98	A	
21	L, F. K.		98	D	
22	L, H. L.		98	A	
23	L, H. M.		98	C	
24	L, K. S.		98	C	

Appendix 29

MODULE RESULTS ENTRY FORM
Non-Intervention or Comparison Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1997-1998

Semester: 2

Group: 8

Subject: Professional Studies

Credit Point(s): 2

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No.</u>	<u>Grade</u>	Status
25	L, M. K.		98	B	
26	L, S. H.		98	C	
27	L, Y. W.		98	B	
28	L, C. C.		98	C	
29	L, L. F.		98	C	
30	L, M. W.		98	B	
31	L, S. Y.		98	A	
32	L, W. Y.		98	B	
33	L, L. F.		98	C	
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 33

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 30

MODULE RESULTS ENTRY FORM 1998 - 1999 Intervention Sample

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 1

Academic Year: 1998 - 1999 Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator: Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	C, P. K.		99	A	
2	C, M. H.		99	B	
3	C, W. K.		99	C	
4	C, W. L.		99	A	
5	C, W. S.		99	A	
6	C, C. L.		99	B	
7	C, L. S.		99	A	
8	C, S. C.		99	A	
9	C, C. M.		99	D	
10	C, S. T.		99	C	
11	C, Y. Y.		99	B	
12	F, L. C.		99	A	
13	H, S. Y.		99	A	
14	H, H. F.		99	B	
15	H, C. M.		99	A	
16	K, S. Y.		99	B	
17	L, H. H.		99	B	
18	L, K. M.		99	B	
19	L, S. H.		99	B	
20	L, C. C.		99	B	
21	L, L. F.		99	C	
22	L, W. M.		99	A	
23	L, S. Y.		99	B	
24	L, P. M.		99	B	
25	L, K. K.		99	C	

MODULE RESULTS ENTRY FORM
1998 - 1999 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year:

Semester: 2

Group: 1

Subject: Professional Studies

Credit Point(s): 2

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
26	L, C. M.		99	A	
27	N, K. Y.		99	C	
28	S, S. L.		99	B	
29	T, S. W.		99	A	
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 29

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 30

MODULE RESULTS ENTRY FORM **1998 - 1999 Intervention Sample**

Module Code: CE**Name:** Instructional Design and Strategies
for Effective Teaching**Course:** (Secondary)**Group:** 2**Academic Year:** 1998 - 1999 **Semester:** 2**Subject:** Professional Studies **Credit Point(s):** 2**Module Coordinator:** **Module****Lecturer:**

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	H, P. K.		99	B	
2	H, M. H.		99	D	
3	H, W. K.		99	C	
4	H, W. L.		99	B	
5	H, W. S.		99	A	
6	H, Y. W.		99	B	
7	I, L. S.		99	C	
8	K, S. C.		99	B	
9	K, C. M.		99	C	
10	K, S. T.		99	C	
11	K, Y. Y.		99	A	
12	K, Y. Y.		99	A	
13	K, W. H.		99	A	
14	K, W. K.		99	B	
15	K, W. L.		99	B	
16	K, W. M.		99	A	
17	K, W. P.		99	A	
18	K, W. S.		99	A	
19	K, W. T.		99	C	
20	K C. H.		99	B	
21	K, W. S.		99	C	
22	K, S. Y.		99	A	
23	L, H. F.		99	B	
24	L, C. M.		99	B	
25	L, S. Y.		99	C	

MODULE RESULTS ENTRY FORM
1998 - 1999 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1998-1999

Semester: 2

Group: 2

Credit Point(s): 2

Subject: Professional Studies

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No.</u>	<u>Grade</u>	Status
26	L, L. H.		99	B	
27	L, K. M.		99	B	
28	L, S. H.		99	A	
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 28

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

MODULE RESULTS ENTRY FORM
1998 - 1999 Intervention Sample

Module Code: CEName: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)Group: 3Academic Year: 1998 - 1999Semester: 2

Subject: Professional StudiesCredit Point(s): 2

Module Coordinator:Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	C, P. K.		99	A	
2	C, M. H.		99	B	
3	C, W. L.		99	A	
4	C, C. L.		99	A	
5	C, L. S.		99	A	
6	C, S. C.		99	B	
7	C, C. M.		99	B	
8	C, S. T.		99	A	
9	C, Y. Y.		99	D	
10	C, Y. Y.		99	C	
11	C, W. H.		99	B	
12	C, W. K.		99	B	
13	C, W. L.		99	A	
14	C, W. M.		99	B	
15	C, W. P.		99	A	
16	C, W. S.		99	B	
17	C, W. T.		99	A	
18	C, W. W.		99	B	
19	H, S. Y.		99	B	
20	H, C. M.		99	B	
21	K, S. Y.		99	C	
22	L, H. H.		99	A	
23	L, C. C.		99	A	
24	L, L. F.		99	B	
25	L, S. Y.		99	C	

Appendix 30

MODULE RESULTS ENTRY FORM
1998 - 1999 Intervention Sample**Module Code:****Name:** Instructional Design and Strategies
for Effective Teaching**Course:** (Secondary)**Group:** 3**Academic Year:**

1998-1999

Semester: 2**Subject:** Professional Studies **Credit Point(s):** 2**Module Coordinator:**

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
26	L, P. M.		99	A	
27	L, K. K.		99	C	
28	L, C. M.		99	B	
29	N, K. Y.		99	A	
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 29

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 30

MODULE RESULTS ENTRY FORM **1998 - 1999 Intervention Sample**

Module Code: CE**Name:** Instructional Design and Strategies
for Effective Teaching**Course:** (Secondary)**Group:** 4**Academic Year:**

1998 - 1999

Semester: 2**Subject:** Professional Studies **Credit Point(s):** 2**Module Coordinator:** **Module****Lecturer:**

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	L, P. K.		99	B	
2	L, H.		99	D	
3	L, K. Y.		99	A	
4	L, L. S.		99	C	
5	L, O. S.		99	B	
6	L, S. M.		99	C	
7	L, W. S.		99	A	
8	L, Y. S.		99	A	
9	L, L. P.		99	C	
10	L, L. M.		99	B	
11	L, H. F.		99	A	
12	L, K. H.		99	B	
13	L, S. Y.		99	A	
14	L, W. S.		99	B	
15	L, M. T.		99	B	
16	L, W. M.		99	A	
17	L, W. P.		99	B	
18	M, W. S.		99	C	
19	M, W. T.		99	B	
20	M, W. W.		99	B	
21	M, L. C.		99	C	
22	S, K. Y.		99	B	
23	S, L. F.		99	B	
24	T, C. M.		99	A	
25	T, S. Y.		99	A	

Appendix 30

MODULE RESULTS ENTRY FORM
1998 - 1999 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 4

Academic Year:

1998-1999

Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:

	<u>Name</u> (English)	(Chinese)	<u>Student No.</u>	<u>Grade</u>	Status
26	T, H. H.		99	C	
27	T, K. M.		99	A	
28	T, S. H.		99	B	
29	T, C. C.		99	A	
30	T, L. F.		99	B	
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 30

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 30

MODULE RESULTS ENTRY FORM **1998 - 1999 Intervention Sample**

Module Code: CE**Name:** Instructional Design and Strategies
for Effective Teaching**Course:** (Secondary)**Group:** 5**Academic Year:**

1998 - 1999

Semester: 2**Subject:** Professional Studies **Credit Point(s):** 2**Module Coordinator:** **Module****Lecturer:**

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
1	C, C. Y.		99	C	
2	C, F. M.		99	A	
3	C, K. M.		99	A	
4	C, K. L.		99	B	
5	C, K. Y.		99	C	
6	C, K.		99	B	
7	C, T. C.		99	C	
8	C, W. F.		99	B	
9	C, W. F.		99	D	
10	C, C. P.		99	A	
11	C, C. N.		99	B	
12	C, L. S.		99	A	
13	C, M. H.		99	B	
14	C, T. K.		99	C	
15	C, W. L.		99	B	
16	H, S. M.		99	C	
17	L, H. P.		99	D	
18	L, C. S.		99	B	
19	L, Y. T.		99	A	
20	N, K. W.		99	A	
21	N, C. C.		99	C	
22	O, K. Y.		99	B	
23	P, S. F.		99	B	
24	P, W. M.		99	C	
25	S, S. Y.		99	A	

Appendix 30

MODULE RESULTS ENTRY FORM
1998 - 1999 Intervention Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 5

Academic Year: 1998 - 1999

Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
26	S, H. H.		99	C	
27	S, C. M.		99	C	
28	S, S. H.		99	A	
29	W, C. C.		99	C	
30	Y, L. F.		99	B	
31	Y, C.Y.		99	B	
32					
33					
34					
35					
36					
37					
38					
39					
40					

Total Number of Students: 31

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 30

MODULE RESULTS ENTRY FORM **1998 - 1999 Non-Intervention or Comparison Sample**

Module Code: CE

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Group: 6

Academic Year:

1998 - 1999

Semester: 2

Subject: Professional Studies Credit Point(s): 2

Module Coordinator:

Module

Lecturer:

	<u>Name (English)</u>	(Chinese)	<u>Student No.</u>	<u>Grade</u>	Status
1	L, S. K.		99	B	
2	L, P. H.		99	C	
3	L, Y. K.		99	A	
4	L, W. L.		99	B	
5	L, W. S.		99	C	
6	L, C. L.		99	C	
7	L, L. S.		99	D	
8	L, H. C.		99	B	
9	L, K. M.		99	B	
10	L, S. T.		99	C	
11	L, Y. Y.		99	C	
12	L, Y. Y.		99	C	
13	L, W. H.		99	B	
14	M, W. K.		99	A	
15	N, H. L.		99	D	
16	N, K. M.		99	C	
17	N, K. P.		99	B	
18	N, L. S.		99	A	
19	N, M. T.		99	C	
20	N, N. W.		99	B	
21	N, Y. C.		99	A	
22	T, Y. Y.		99	C	
23	T, H. F.		99	A	
24	W, C. M.		99	C	
25	W, S. Y.		99	C	

MODULE RESULTS ENTRY FORM
1998 - 1999 Non-Intervention or Comparison Sample

Module Code:

Name: Instructional Design and Strategies
for Effective Teaching

Course: (Secondary)

Academic Year: 1998-1999

Semester: 2

Group: 6

Credit Point(s): 2

Subject: Professional Studies

Module Coordinator:

	<u>Name (English)</u>	(Chinese)	<u>Student No:</u>	<u>Grade</u>	Status
26	W, H. H.		99	<div>B</div>	
27	W, K. M.		99	<div>B</div>	
28	W, S. H.		99	<div>C</div>	
29	W, T. C.		99	<div>B</div>	
30	W, W. F.		99	<div>A</div>	
31				<div></div>	
32				<div></div>	
33				<div></div>	
34				<div></div>	
35				<div></div>	
36				<div></div>	
37				<div></div>	
38				<div></div>	
39				<div></div>	
40				<div></div>	

Total Number of Students: 30

Signature of Module Lecturer:

Name of Module Lecturer:

Date:

Appendix 31

Factor Analysis - On Working in Teams - Teamwork (From Q1-Q11)

Communalities		
	Initial	Extraction
Question 1	.529	.537
Question 2	.465	.470
Question 3	.277	.277
Question 4	.475	.522
Question 5	.373	.386
Question 6	.444	.451
Question 7	.458	.489
Question 8	.567	.609
Question 9	.336	.346
Question 10	.417	.382
Question 11	.518	.490

Extraction Method: Maximum Likelihood.

Total Variance Explained

Initial Eigenvalues				Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.492	49.931	49.931	4.960	45.088	45.088
2	.783	7.123	57.054			
3	.743	6.753	63.807			
4	.726	6.600	70.407			
5	.645	5.865	76.272			
6	.583	5.304	81.576			
7	.497	4.515	86.092			
8	.456	4.147	90.239			
9	.410	3.728	93.967			
10	.340	3.092	97.059			
11	.324	2.941	100.000			

Extraction Method: Maximum Likelihood.

Factor Matrix

	Factor
	1
Question 1	.733
Question 2	.686
Question 3	.526
Question 4	.722
Question 5	.621
Question 6	.672
Question 7	.700
Question 8	.781
Question 9	.589
Question 10	.618
Question 11	.700

Goodness-of-fit Test		
Chi-Square	df	Sig.
300.472	44	.000

Extraction Method: Maximum Likelihood.
a. 1 factors extracted. 3 iterations required.

Rotated Factor Matrix

a. Only one factor was extracted. The solution cannot be rotated.

Appendix 31

Oneway – Compare the mean of Teamwork for 5 datasets/Samples
Descriptives

TEAMWORK

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Data Set A	343	2.2038	.39646	.02141	2.1617	2.2459	1.17	4.08
Data Set B	332	1.9164	.52379	.02875	1.8599	1.9730	.92	4.00
Data Set C	94	2.2004	.39055	.04028	2.1204	2.2803	1.17	4.08
Data Set D	93	2.2760	.59372	.06157	2.1537	2.3983	1.25	3.75
Data Set E	48	2.0799	.67612	.09759	1.8835	2.2762	1.17	3.75
Total	910	2.0995	.50455	.01673	2.0666	2.1323	.92	4.08

ANOVA

TEAMWORK

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.734	4	4.684	19.930	.000
Within Groups	212.668	905	.235		
Total	231.403	909			

TEAMWORK

Tukey HSD		N	Subset for alpha = .05		
	Data Set		1	2	3
	Data Set B	332	1.9164		
	Data Set E	48	2.0799	2.0799	
	Data Set C	94		2.2004	2.2004
	Data Set A	343		2.2038	2.2038
	Data Set D	93			2.2760
	Sig.		.108	.350	.794

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 103.838.

b The group sizes are unequal. The harmonic mean of the group sizes is used.
Type I error levels are not guaranteed.

Appendix 31

Multiple Comparisons

Dependent Variable: TEAMWORK

(I) Data Set (J) Data Set			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Tukey HSD	Data Set A	Data Set B	.2874	.03732	.000	.1854	.3894
		Data Set C	.0035	.05644	1.000	-.1508	.1577
		Data Set D	-.0721	.05667	.708	-.2271	.0828
		Data Set E	.1240	.07470	.460	-.0802	.3282
	Data Set B	Data Set A	-.2874	.03732	.000	-.3894	-.1854
		Data Set C	-.2839	.05664	.000	-.4387	-.1291
		Data Set D	-.3596	.05687	.000	-.5150	-.2041
		Data Set E	-.1634	.07486	.187	-.3680	.0412
	Data Set C	Data Set A	-.0035	.05644	1.000	-.1577	.1508
		Data Set B	.2839	.05664	.000	.1291	.4387
		Data Set D	-.0756	.07090	.824	-.2694	.1182
		Data Set E	.1205	.08600	.627	-.1146	.3555
	Data Set D	Data Set A	.0721	.05667	.708	-.0828	.2271
		Data Set B	.3596	.05687	.000	.2041	.5150
		Data Set C	.0756	.07090	.824	-.1182	.2694
		Data Set E	.1961	.08615	.153	-.0394	.4316
	Data Set E	Data Set A	-.1240	.07470	.460	-.3282	.0802
		Data Set B	.1634	.07486	.187	-.0412	.3680
		Data Set C	-.1205	.08600	.627	-.3555	.1146
		Data Set D	-.1961	.08615	.153	-.4316	.0394
Bonferroni	Data Set A	Data Set B	.2874	.03732	.000	.1824	.3924
		Data Set C	.0035	.05644	1.000	-.1553	.1623
		Data Set D	-.0721	.05667	1.000	-.2316	.0873
		Data Set E	.1240	.07470	.973	-.0862	.3342
	Data Set B	Data Set A	-.2874	.03732	.000	-.3924	-.1824
		Data Set C	-.2839	.05664	.000	-.4433	-.1246
		Data Set D	-.3596	.05687	.000	-.5196	-.1995
		Data Set E	-.1634	.07486	.293	-.3741	.0472
	Data Set C	Data Set A	-.0035	.05644	1.000	-.1623	.1553
		Data Set B	.2839	.05664	.000	.1246	.4433
		Data Set D	-.0756	.07090	1.000	-.2751	.1239
		Data Set E	.1205	.08600	1.000	-.1215	.3625
	Data Set D	Data Set A	.0721	.05667	1.000	-.0873	.2316
		Data Set B	.3596	.05687	.000	.1995	.5196
		Data Set C	.0756	.07090	1.000	-.1239	.2751
		Data Set E	.1961	.08615	.231	-.0463	.4386
	Data Set E	Data Set A	-.1240	.07470	.973	-.3342	.0862
		Data Set B	.1634	.07486	.293	-.0472	.3741
		Data Set C	-.1205	.08600	1.000	-.3625	.1215
		Data Set D	-.1961	.08615	.231	-.4386	.0463

* The mean difference is significant at the .05 level.

Appendix 32

Comparison of Module Grades for 1998 and 1999 Cohorts
for both intervention and Non-Intervention Samples

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
GRADE	437	2.0435	.89874	1.00	5.00
YEAR	437	1.4027	.49101	1.00	2.00
GROUP	437	1.2151	.41136	1.00	2.00

Chi-Square Test
Frequencies

Grade

	Observed N	Expected N	Residual
1.00 Grade A	141	87.4	53.6
2.00 Grade B	161	87.4	73.6
3.00 Grade C	111	87.4	23.6
4.00 Grade D	23	87.4	-64.4
5.00 Grade E	1	87.4	-86.4
Total	437		

Year

	Observed N	Expected N	Residual
1.00 1998	261	218.5	42.5
2.00 1999	176	218.5	-42.5
Total	437		

Group

	Observed N	Expected N	Residual
1.00 Intervention	343	218.5	124.5
2.00 Comparison	94	218.5	-124.5
Total	437		

Test Statistics

	GRADE	YEAR	GROUP
Chi-Square	234.087	16.533	141.879
df	4	1	1
Asymp. Sig.	.000	.000	.000

- a. 0 cells (.0%) have expected frequencies less than 5.
The minimum expected cell frequency is 87.4.
- b. 0 cells (.0%) have expected frequencies less than 5.
The minimum expected cell frequency is 218.5.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
YEAR * GRADE	437	98.6%	6	1.4%	443	100.0%
GROUP * GRADE	437	98.6%	6	1.4%	443	100.0%

Appendix 32

YEAR * GRADE

Crosstab

Count		GRADE					
		1.00 Grade A	2.00 Grade B	3.00 Grade C	4.00 Grade D	5.00 Grade E	Total
YEAR	1.00 1998	87	91	67	15	1	261
	2.00 1999	54	70	44	8		176
Total		141	161	111	23	1	437

Chi-Square Tests

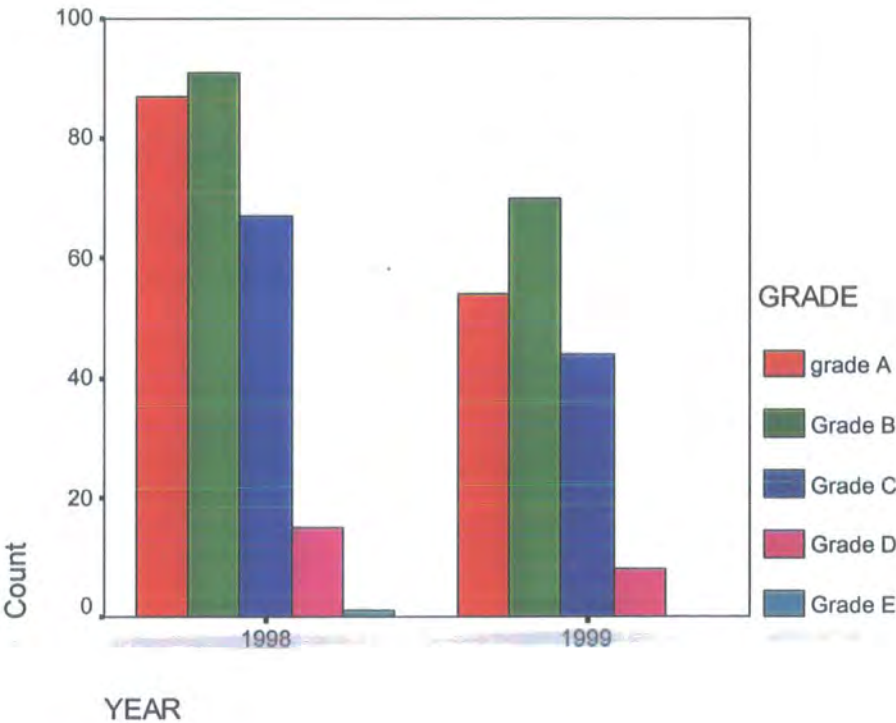
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.897	4	.755
Likelihood Ratio	2.255	4	.689
Linear-by-Linear Association	.032	1	.858
N of Valid Cases	437		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is .40.

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Interval by Interval	Pearson's R	-.009	.047	-.179	.858
Ordinal by Ordinal	Spearman Correlation	-.001	.047	-.015	.988
N of Valid Cases		437			

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on normal approximation.



Appendix 32

GROUP * GRADE
Crosstab

Count	GRADE					
	1.00 grade A	2.00 Grade B	3.00 Grade C	4.00 Grade D	5.00 Grade E	Total
GROUP 1.00 Intervention	122	133	73	15		343
2.00 Comparison	19	28	38	8	1	94
Total	141	161	111	23	1	437

Chi-Square Tests

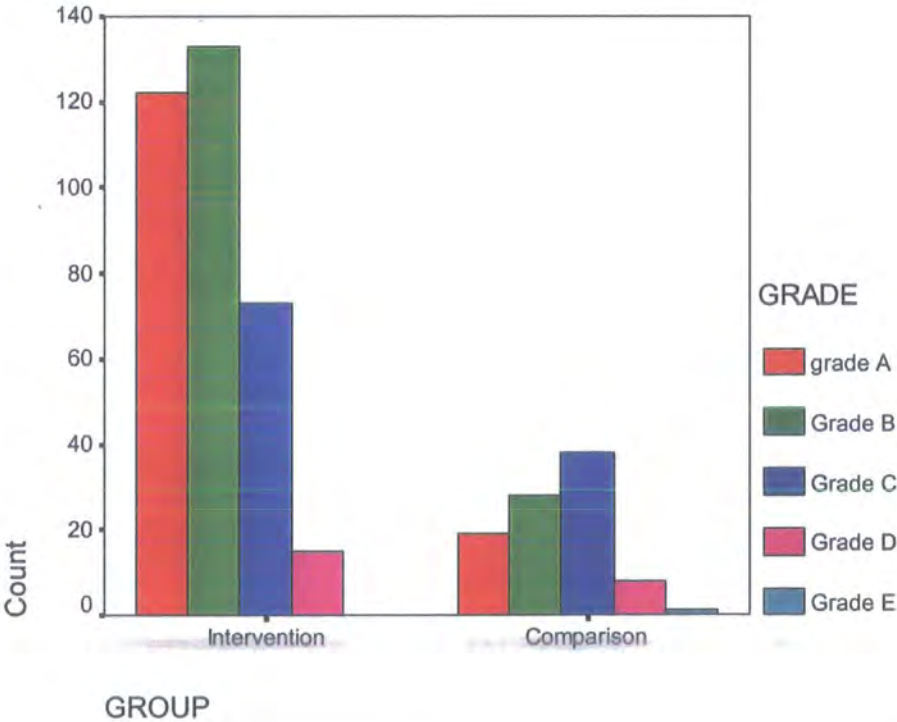
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.703	4	.000
Likelihood Ratio	22.411	4	.000
Linear-by-Linear Association	19.298	1	.000
N of Valid Cases	437		

- a. 3 cells (30.0%) have expected count less than 5.
The minimum expected count is .22.

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Interval by Interval	Pearson's R	.210	.048	4.488	.000
Ordinal by Ordinal	Spearman Correlation	.206	.047	4.384	.000
N of Valid Cases		437			

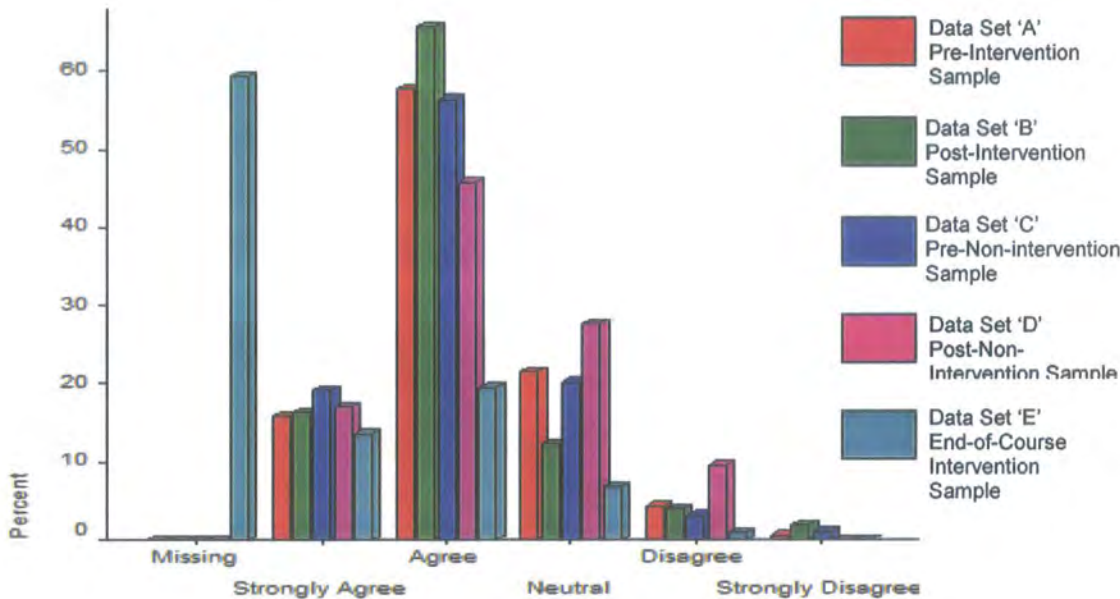
- a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.



Appendix 33

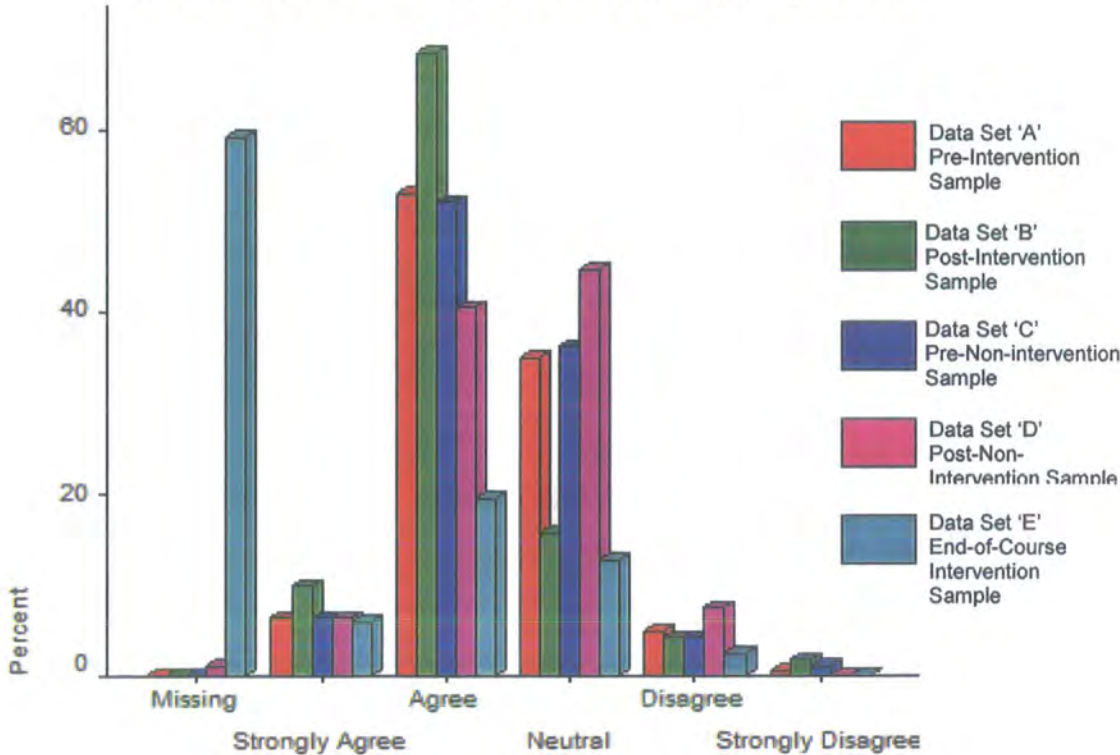
Comparison of Means between Samples and Questionnaire Items
Bar Chart 1

Comparison of means for Question 1
"Working in groups will / has been useful in class."



Bar Chart 2

Comparison of means for Question 2
"I will/have learn/ed more course content by working in a group/team."

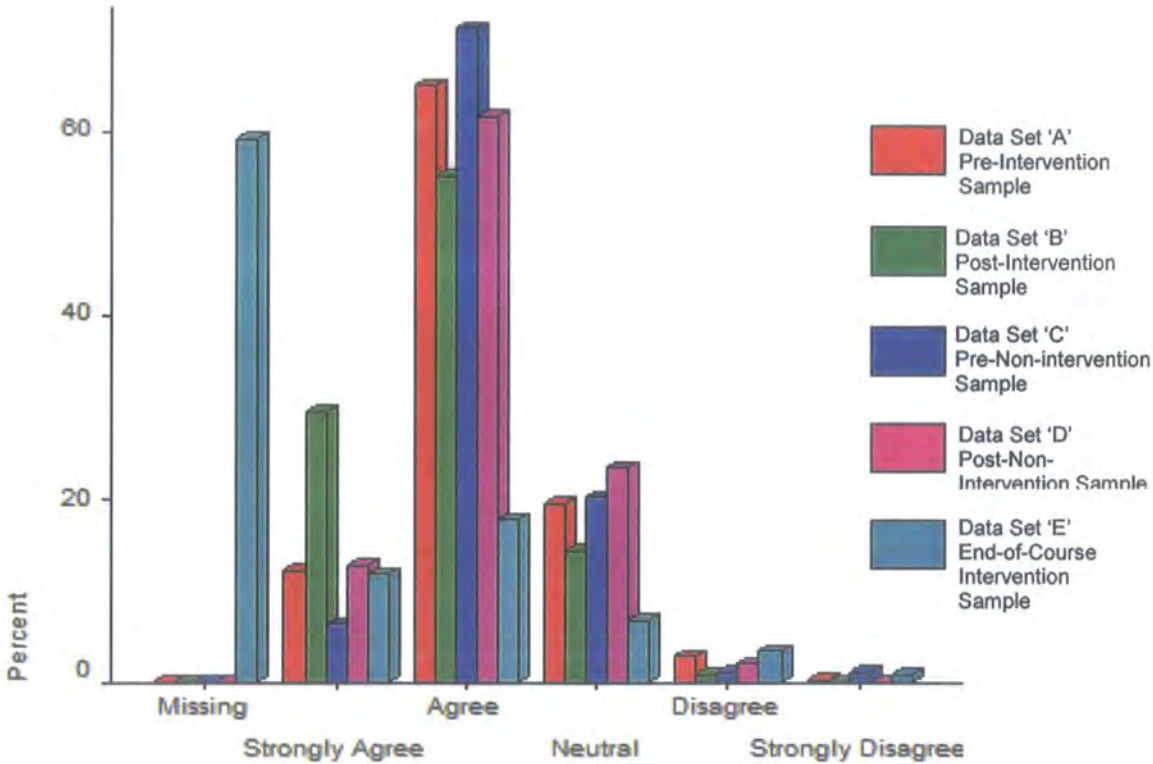


Appendix 33

Bar Chart 3

Comparison of means for **Question 3**

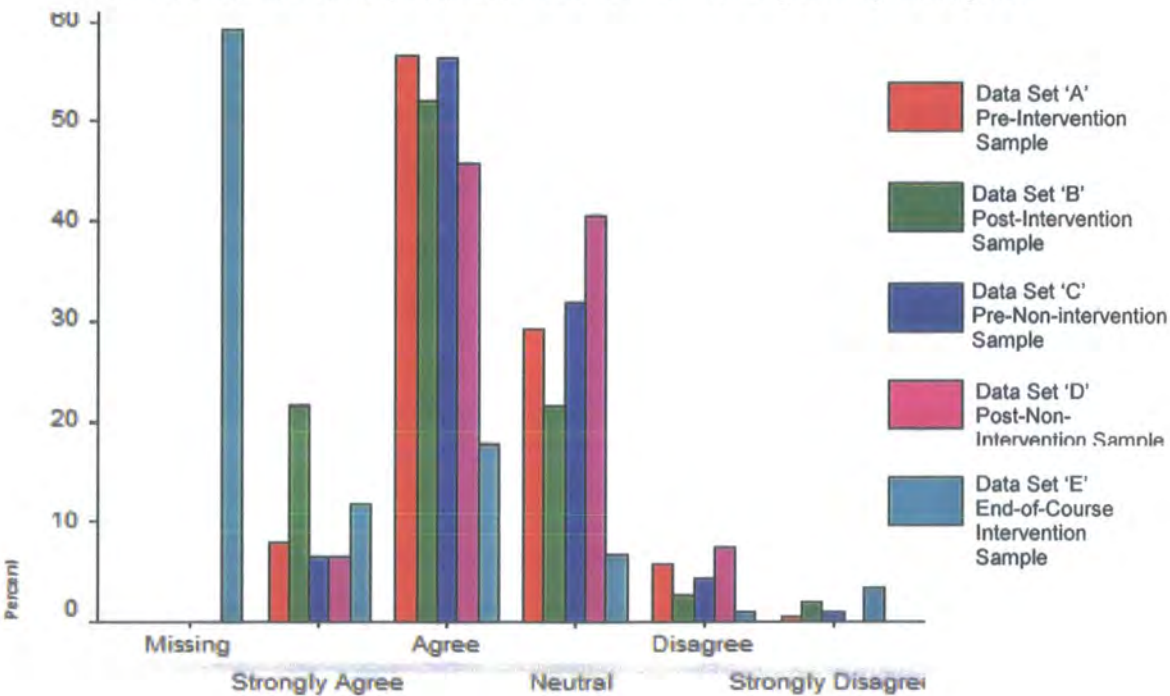
"I will/have learn/ed more about my colleagues by working with them in a group/team."



Bar Chart 4

Comparison of means for **Question 4**

"I will/have do/ne a better presentation as a result of working with my colleagues."

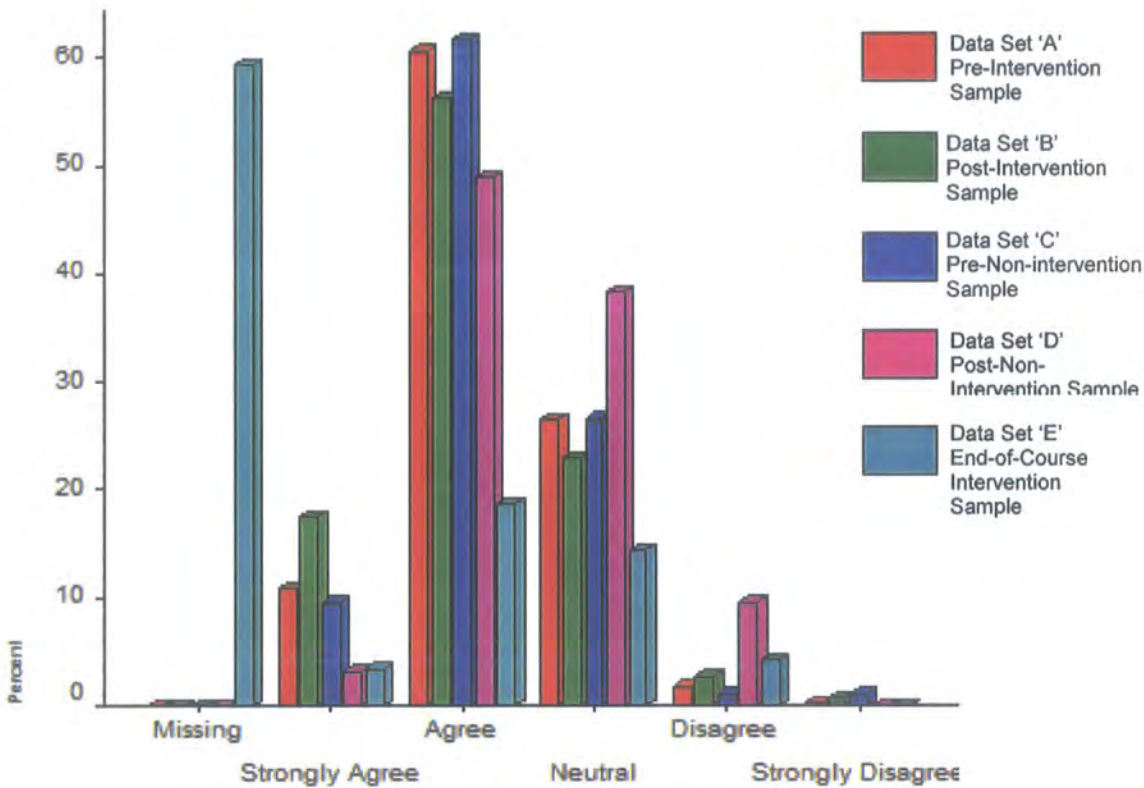


Appendix 33

Bar Chart 5

Comparison of means for **Question 5**

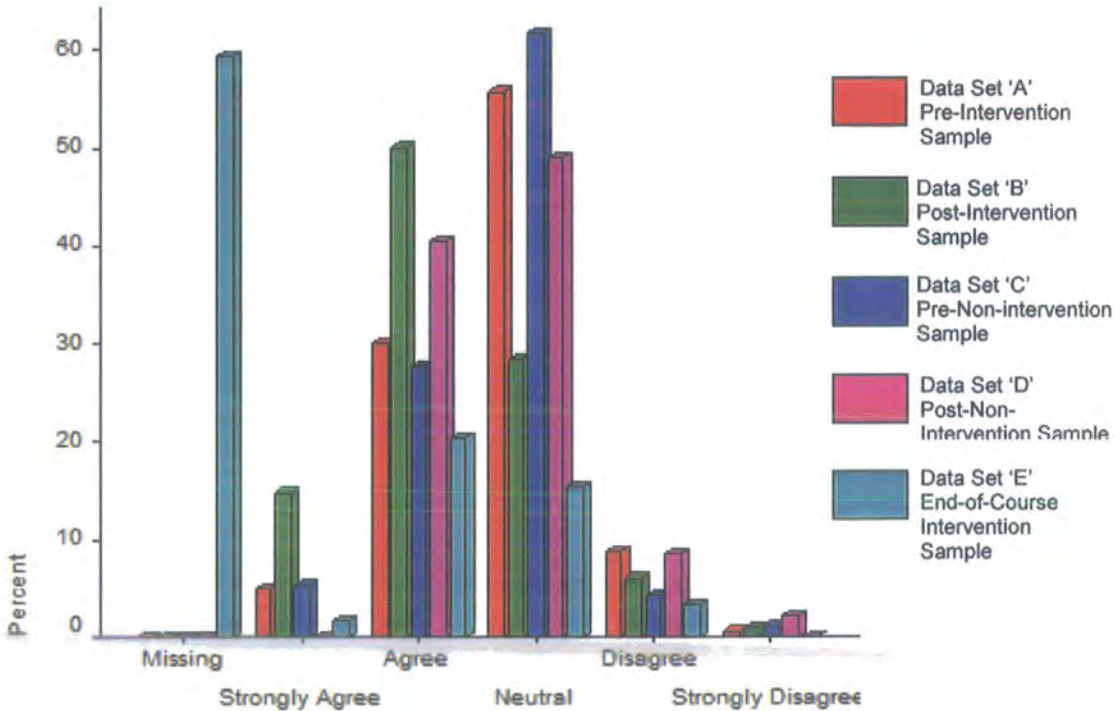
"My reflective skills will/have improve/d as a result of talking with my colleagues."



Bar Chart 6

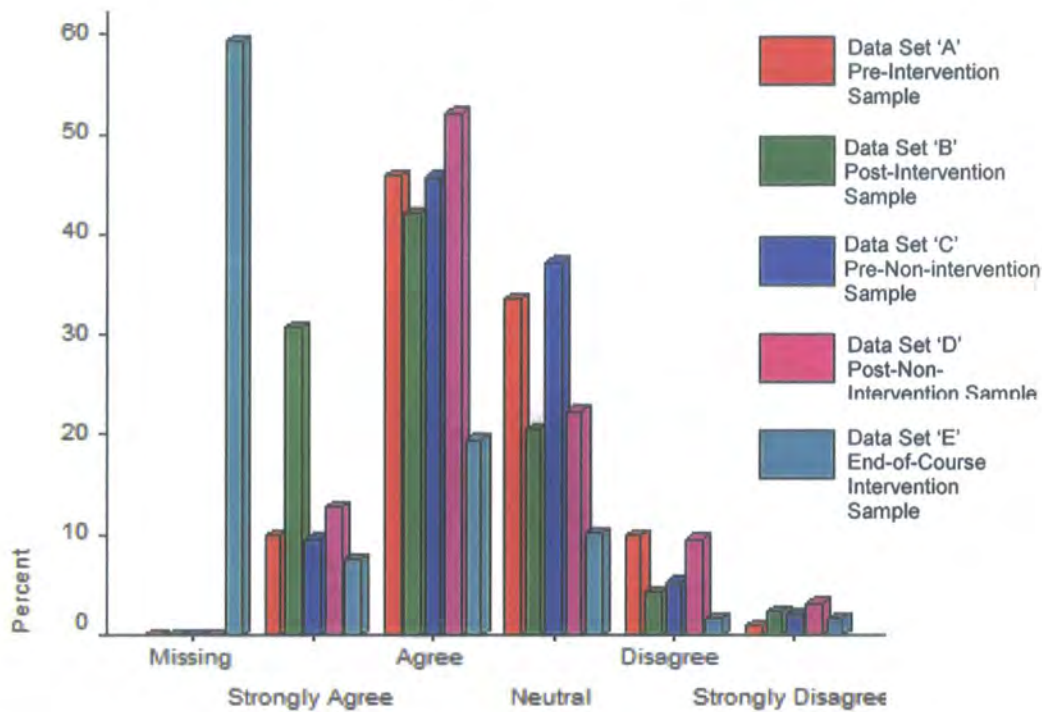
Comparison of means for **Question 6**

"My grade for my course portfolio will/has/ve been better if/because I work/ed with my colleagues."

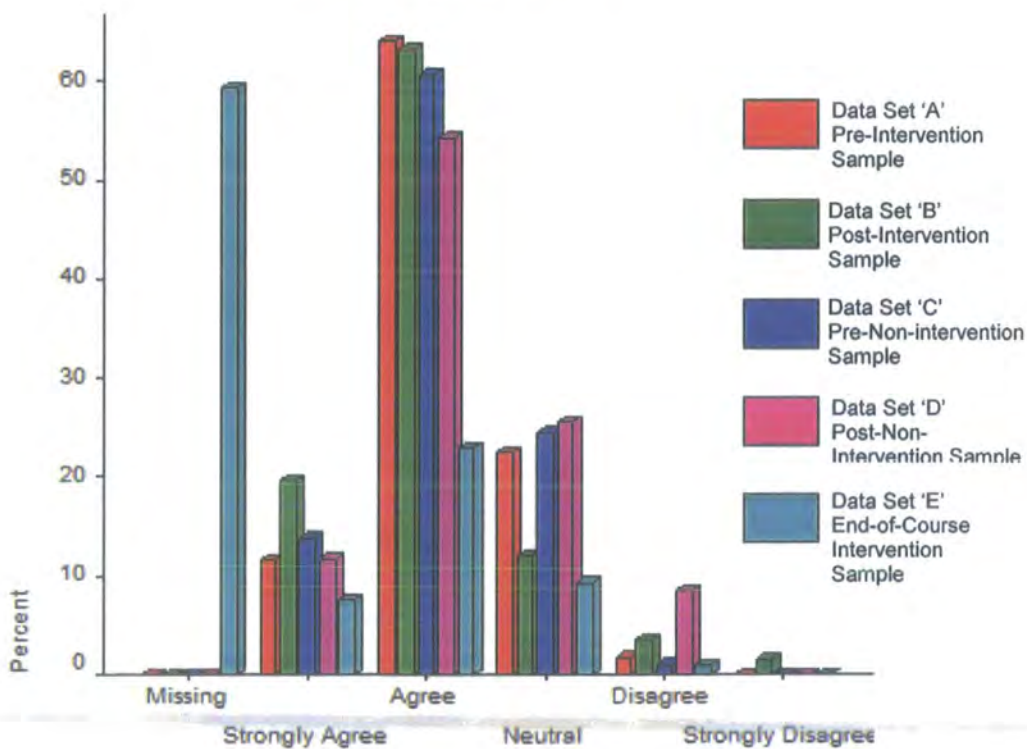


Appendix 33

Bar Chart 7
Comparison of means
for **Question 7**
"I understand why group/team work is important."



Bar Chart 8
Comparison of means for **Question 8**
"I like to work in a group/team."

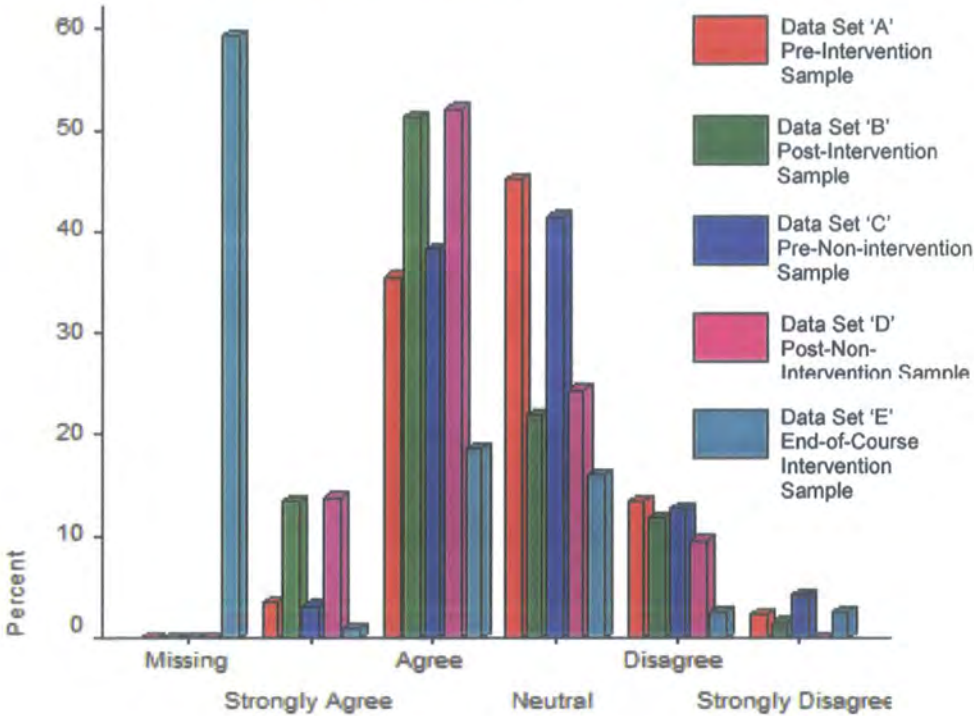


Appendix 33

Bar Chart 9

Comparison of means for **Question 9**

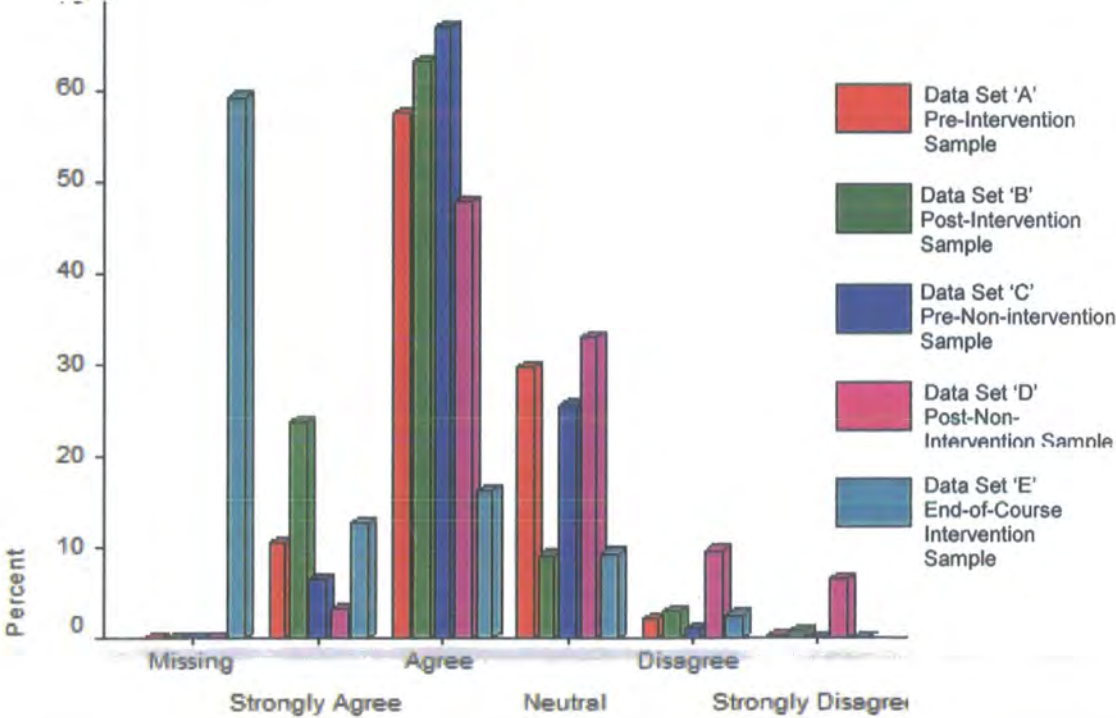
"I think that my English skills will/have improve/d because my group team will/has worked together on the presentations."



Bar Chart 10

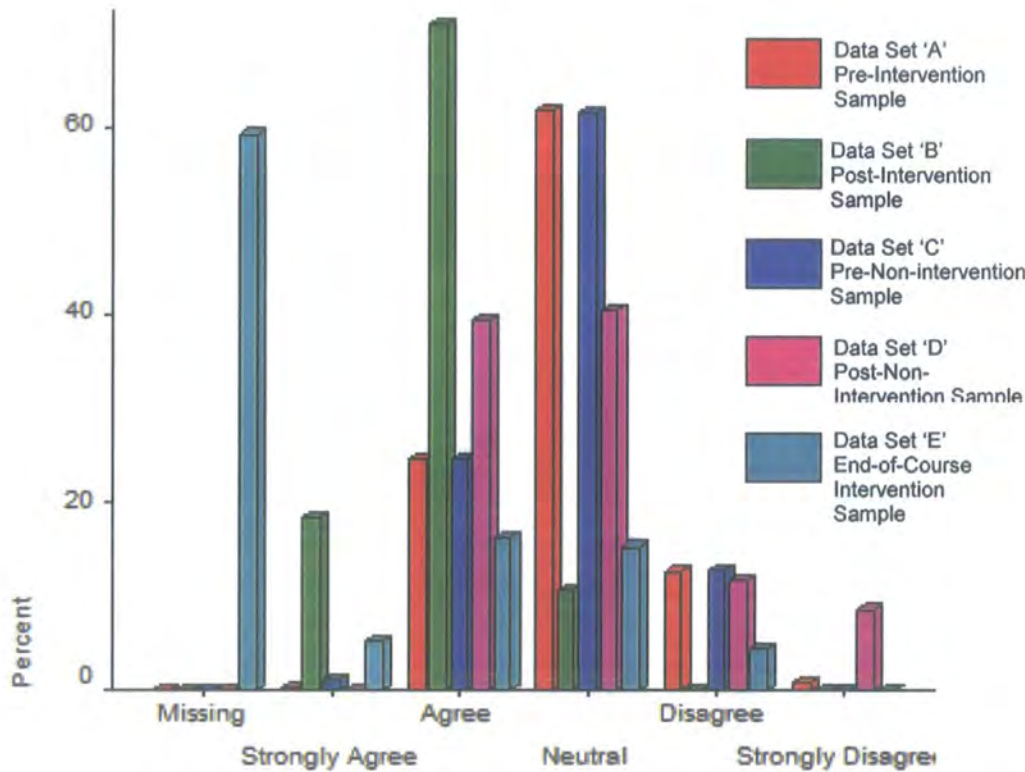
Comparison of means for **Question 10**

"I will use group/team work when I am a teacher."



Appendix 33

Bar Chart 11
Comparison of means for **Question 11**
"I think/know that I will/have gained confidence and self-esteem by working in a group/team."



- (f). Relationships –

☐ As the teams worked together, friendships developed

☐

☐
- (g). Allocation of work –

☐ The team task was equally shared

☐

☐
- (h). Active members of team –

☐ All team members actively participated in the team tasks

☐

☐
- (i). Who did what –

☐ Individual team members carried out their allotted task

☐

☐
- (j). Who organised work for presentation –

☐ One team member took charge of the team presentation

☐

☐
- (k). Who prepared materials for presentation –

☐ All of the team members prepared the presentation materials

☐

☐
- (l). How much help was needed –

☐ The teams requested assistance regularly

☐

☐
- (m). Did team members appear happy working together –

☐ The team functioned exceedingly well

☐

☐
- (n). Were there any visible conflict areas –

☐ There were no conflict areas within the teams

☐

☐
- (o). Any personal comments from teams or team members –

☐ Teams commented on their experience of QLT

☐

☐

Appendix 35

Demographic Data for the Teaching Team

Lecturer No:	Nationality	Mother Tongue	Teaching/Education Experience	Gender
1.	Australian	English	27years	F
2.	British	English	32years	M
3.	U.S.A.	English	30years	F
4.	Canada	English	27years	M
5.	U.S.A.	English	29years	M
6.	British	English	33years	M
7.	Taiwan	English/Chinese	26years	F
8.	Hong Kong	English/Chinese	30years	M

